STRUCTURAL FLOOR ANALYSIS

ROOMS 5031 AND 6433 FEDERAL BUILDING 517 Gold Avenue, SW

> Albuquerque New Mexico

BPLW Architects & Engineers, Inc.
Albuquerque, New Mexico
Architect's Project Number: 91062.004

BPLW

Architects & Engineers, Inc.

erican Financial Center #5 10 Louisiana Blvd. NE Suite 400 Albuquerque, New Mexico 87110

Senior Principals

William L. Burns, AIA

Inhald L. Peters, AIA, APA

Leph D. Long, Emeritus, AIA, PE

Bill J. Waters, AIA

O C. Crafton, PE

arlie M. Otero, AIA David A. Penasa, PE, MIES

hcipals

frey R. Bergmann, PE Ronald Burstein, AlA John I. Manzanares, AlA Jor M. Mason, AlA, CCS Lugene A. Valentine, AlA, CCS March 11, 1992

Mr. Hector Gonzalez
General Services Administration
PBS, Region 7
Design and Construction Division (7PCPT)
819 Taylor Street
Fort Worth, Texas 76102-6105

Re: Floor Load Analysis
Rooms 6433 and 5031
Federal Building
517 Gold Avenue
Albuquerque, NM

Dear Mr. Gonzalez:

Further investigation of the plans for the Federal Building revealed that the 8" deep dropped panels used in the initial investigation for rooms 6433 and 5031 are actually 4" deep. This caused a minor change in the analysis of the floor slabs.

Therefore, I am sending this revised edition of the report. This edition shall supercede the original report. Per our telephone conversation, I am including the photograph holders so the original photographs can be inserted. Please note that the "CONCLUSIONS" and "RECOMMENDATIONS" portions of the report and the analysis in Appendix B have been revised. Also included in Appendix C is the letter and floor plan sketch for the rearrangement of the map files in room 6433

Mr. Hector Gonzalez March 11, 1992

I regret that this revision became necessary, but it is important that the report be as accurate as possible. If you have any questions, or if we can be of further assistance, please call.

Sincerely,

BPLW ARCHITECTS & ENGINEERS, INC.

Jason M. Weaver, EI Structural Engineer

Jason M Weaver

TABLE OF CONTENTS

INTRODUCTION 1
SCOPE 2
SITE INVESTIGATION
STRUCTURAL ANALYSIS
CONCLUSIONS 6
RECOMMENDATIONS 7
APPENDIX A - PHOTOS
APPENDIX B - STRUCTURAL ANALYSIS
APPENDIX C

INTRODUCTION:

The purpose of this report is to explain the investigation, structural floor analysis, and the results of this analysis on rooms 5031 and 6433 of the Federal building located at 517 Gold Avenue SW, Albuquerque, New Mexico. This report was requested by the General Services Administration, Design and Construction Division, Fort Worth, Texas through order number P-07-92-JU-0051.

SCOPE:

The investigation of the floor load capacity of rooms 5031 and 6433 consisted of a site investigation, a structural analysis, conclusions from the analysis, and recommendations regarding any structural problems found through the analysis.

The purpose of the site investigation was to verify existing conditions of the floor slabs in the two rooms mentioned. It was also necessary to verify the existing loads on the floor slabs and the positions of these loads with respect to the structural members supporting the slab.

The structural analysis was requested by GSA to be a two-way slab analysis by the Equivalent Frame Method. The analysis was to include shear strength and moment capacity of the slabs and columns. It was to comply with ACI 318-89 and with PCA'S "Notes on ACI 318-89, Building Code Requirements for Reinforced Concrete."

Conclusions based on the structural analysis are presented in this report as are recommendations concerning the condition of the floor slabs with regard to strength and serviceability.

SITE INVESTIGATION:

Our office performed a site investigation of the two rooms on February 14, 1992. Visible conditions of the floor slabs and loads were noted and measurements of equipment sizes and locations were taken. Photographs of the loads on the floor slabs were taken to include in this report. A second site investigation was performed on February 20, 1992 to verify equipment locations and provide a few more necessary dimensions.

There was no obvious structural distress of the floor slab in room 5031. However, the slab was covered with carpet so a thorough examination of the slab itself was not possible. Room 5031 is currently being used as an office and the live loads were typical of an office with the exception of the number and arrangement of some file cabinets, map files, and book cases (see photos, Appendix A). These were arranged in rows of up to nine file cabinets that obviously delivered some significant loads to the floor slab.

Portions of the other room under consideration, room 6433, are being used for storage of maps in map files (see photos, Appendix A). These map files were also arranged primarily in rows. The floor slab in room 6433 was also covered with carpet, so the surface of the slab could not be seen, but there were obvious areas of structural distress in the floor slab. These were manifested by areas of abnormally large floor deflections, especially under the two major rows of map files.

Although proper measurements of these deflections with surveying equipment was not within the scope of this investigation, the rotation of the floor slab at a column was estimated by measuring a V-shaped gap between two map files. The measured rotation roughly corresponds to a deflection of approximately 1.75" over the 25' span of the floor slab. Although this was obviously not an "exact" method of determining deflections, it served to illustrate the fact that there were major floor deflections in room 6433 at the time of our site investigation.

STRUCTURAL ANALYSIS:

LOADS:

The loads generated and listed in Appendix B include the dead loads of the structure and fixed equipment in the vicinity of rooms 5031 and 6433. The loads due to the file cabinets and map files mentioned in the previous section were calculated assuming the files were completely full of paper with a unit weight of 58 pounds per cubic foot. Since this equipment is relatively hard to move, it was considered as fixed equipment. The live load used is recommended by the Uniform Building Code for office spaces.

STRUCTURE PROPERTIES:

The geometric configuration of the structure and the floor slab were taken from drawings supplied by GSA for another project currently under way, since no evidence during the site investigation contradicted those plans. The floor slab is shown on those plans to be an 8" thick two-way reinforced concrete slab system with dropped panels at the columns. The columns are cast-in-place concrete columns on a 25' grid.

The supplied plans are dated 1956, and are somewhat obscure as to the strengths of materials used. The reinforcing used was specified to comply with ASTM 305-49, an ASTM reference that has since changed to ASTM 615. However, ASTM 615 allows for two different grades of reinforcing, grade 40 with a yield strength of 40 ksi and grade 60 with a yield strength of 60 ksi. Since there was no reference to which grade of reinforcing was used, we assumed that it was grade 40, feeling that it was much more likely to have been used in 1957 than grade 60. Also rather obscure was the strength of the concrete specified for the floor slabs. The plans allowed for three strengths of concrete to be used on the building, 2500 psi, 3000 psi, and 3750 psi. The plans did call for the columns to be of 3750 psi concrete and the walls to be of 3000 psi concrete. We assumed that it was far more likely for the slabs to be the same strength as the walls, so the calculations were based on a concrete strength of 3000 psi. One other pertinent item that was fairly obscure on the plans was the floor slab reinforcement. No reinforcement was specifically called out for the floor slab at column lines "E" or "F" in the north-south direction. However, these column lines are fairly typical and were assumed to be reinforced the same as column line "D". This type of noting, noting one typical item and making the other typical ones the same, was common practice in old style plans.

METHOD OF ANALYSIS:

The method of analysis used was the Equivalent Frame method as per ACI 318-89 (see Appendix B for calculations). This was used to calculate the floor slab stiffnesses at typical sections, dropped panels and at columns. The "equivalent frame" was then modeled on the computer to calculate the stresses in the slab and the columns. The stresses in the members were factored with appropriate ACI load factors in load combination #1. The other load combinations were for computational conveniences only. Deflections were also calculated by the computer program, but these are based on the gross moment of inertia, not the effective moment of inertia and are thus low. The factored stresses calculated by the computer program were then compared to the ultimate moment capacity of the member. The shear loads were calculated by hand and compared to the shear capacities of the slabs. The most highly loaded equivalent frame for each room was analyzed.

CONCLUSIONS:

The floor slabs for this building have dropped panels (8'-4" x 8'-4" x 4" thick) at the columns. These shear panels increase the shear capacity of the slab by increasing the area stressed in shear. Our analysis showed that the shear capacity of the slabs and dropped panels was more than adequate for the applied load (see Appendix B). It showed that there is significant reserve capacity as far as shear failure is concerned for both of the rooms under investigation.

Our analysis showed that the loading of the floor slab in room 6433 due to the mentioned map files has caused the corresponding moment in the floor slab to exceed the moment capacity of the floor slab. This was consistent with the unusually large deflections described earlier. However, the slab is still supporting the loads. We believe that the only reason that the slab has not failed catastrophically is the forgiving nature of the two-way slab system when it comes to moment redistribution. When one area fails, moment is transferred to other areas of the slab/column system. It is possible, however, to subsequently overstress those new areas and cause a progressive failure.

Comparison of the calculated moment in the floor slab at room 5031 with the moment capacity of the slab showed that the current loading exceeded the moment capacity of the slab. In fact, the slab was overstressed under dead and live loads only. As mentioned earlier, the forgiving nature of the two-way slab system provides enough redundancies to prevent collapse.

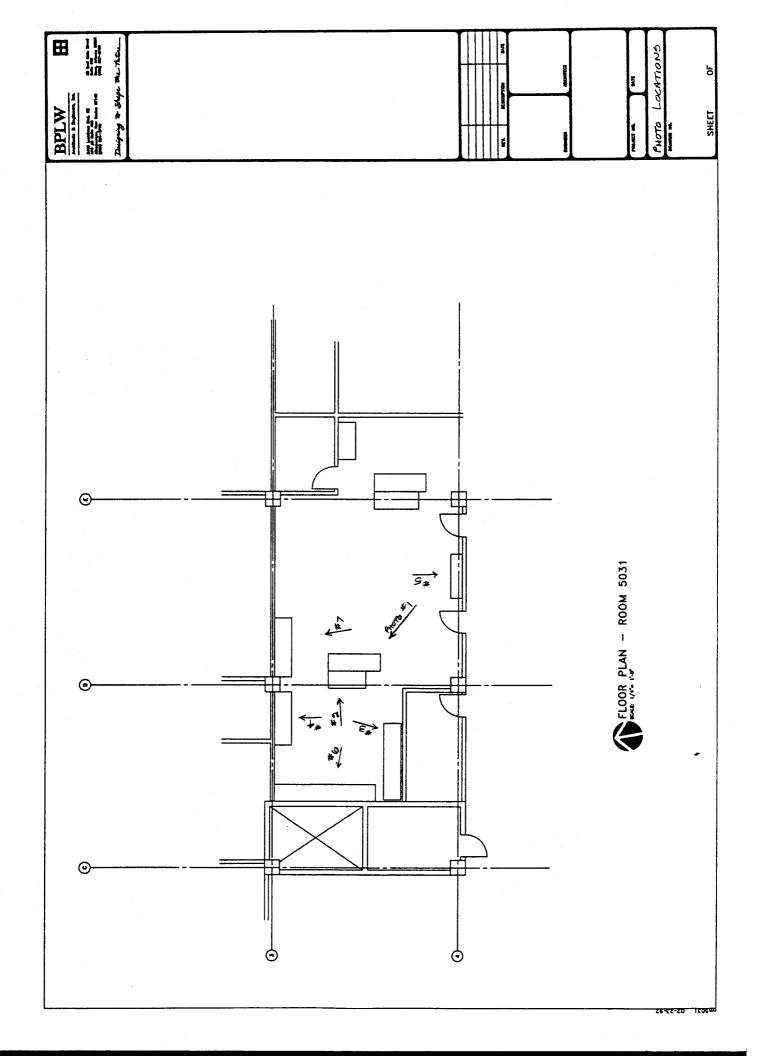
RECOMMENDATIONS:

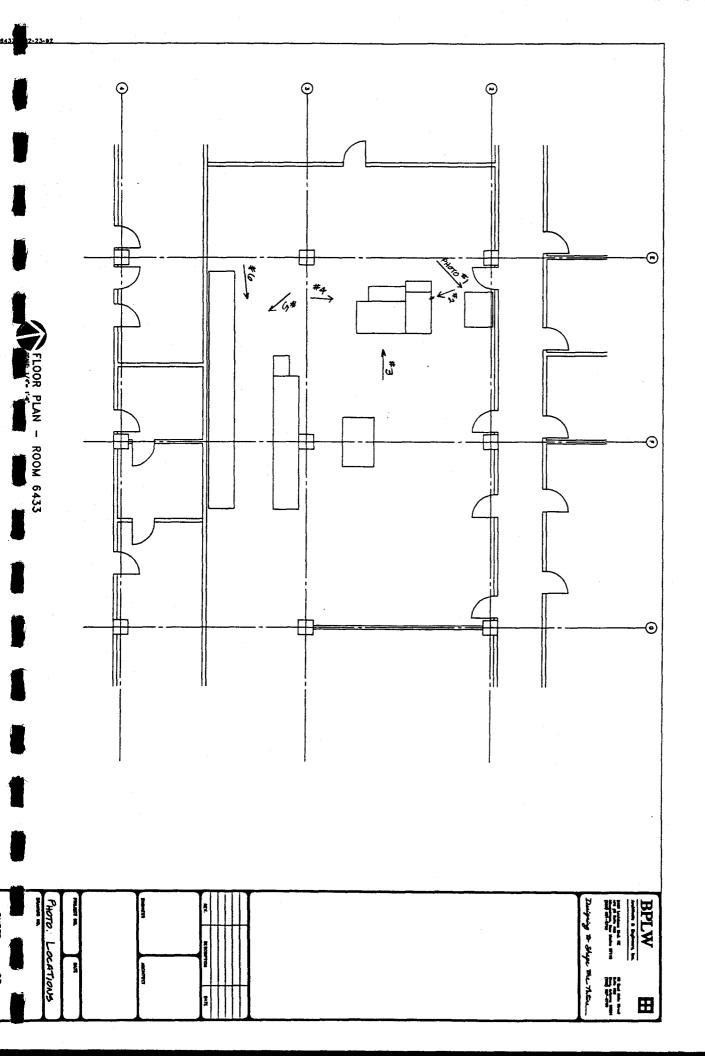
Based on the results of this analysis, it is apparent that the moment capacity of the slabs is not sufficient to withstand the current loads. This raises the question of the capacity of the slabs in the remainder of the building. It would be extremely wise to perform an investigation on the entire building. This investigation should include material testing of the in-place slab materials and a thorough structural analysis.

The analysis showed that the moment capacity of the slab in room 6433 has been exceeded. This indicates that a portion of the slab has been damaged (see Appendix C). There is no way to know for certain the extent of the damage. It is possible that the redistribution of moments mentioned earlier has caused other areas to become overstressed. Based on that fact, and the observed condition of the slab, it is our recommendation that all the map files and other abnormally heavy loads be removed from the room by hand. We feel that it would not be wise to relocate the map files to other parts of the room until the full extent of the apparent damage has been verified by a testing and investigation procedure beyond the scope of this report.

Since the moment capacity of the floor slab of room 5031 has been exceeded, there is a possibility of slab damage in this room also. It would be prudent to reduce the moment in the slab by relocating the file cabinets, map files and book cases to areas of the room nearest to the columns (see sketch in Appendix C) until such time as a full investigation can be completed.

APPENDIX A





APPENDIX B

BPLW

chitects & Engineers, Inc.

2400 Louisiana Blvd. NE \$50, #5 Suite 400 querque, NM 87110 \$881-2759

63 East Main Stree Suite 602 Mesa, AZ 85201 (602) 827-2759 Project GSA MAP Room

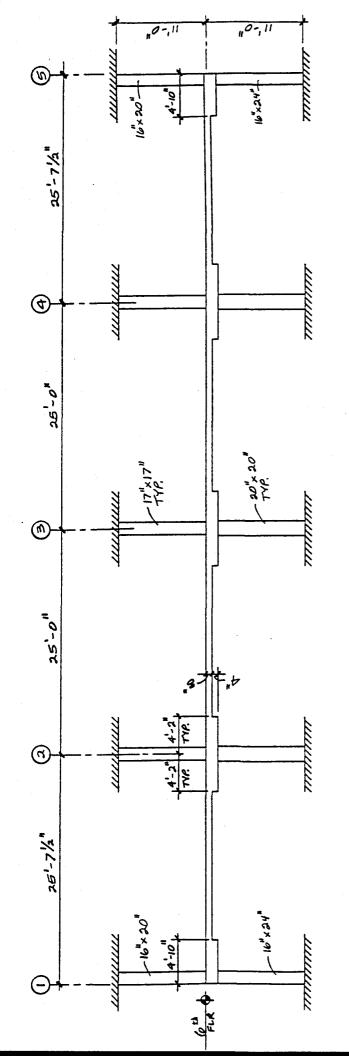
Subject FLOOR LOAD ANALYSIS

Project No. 91062,004 Date 2/20/92 By JMW

☐ Memorandum
☐ Telephone record
☐ ☐ Note to the file
☐ Minutes of meeting
☐ ☐ To be typed

ROOM 6433

Page of



TYPICAL SLAB-BEAM CONFIGURATION

BPLW

chitects & Engineers, Inc.

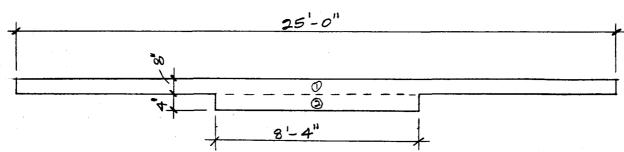
2400 Louisiana Blvd. NE AFC #5 Suite 400 Equerque, NM 87110) 881-2759 63 East Main Stree Suite 602 Mcsa, AZ 85201 (602) 827-2759 Project ☐ Telephone record

Project ☐ Note to the file

Subject ☐ Minutes of meeting

☐ To be typed

Project No. _____ Date ____ By ____



ECTION AREA y Ay

1 2400 8 19,200

2 400 2 800

2800 20,000

$$I_1 = 12,800$$
 $A_1 = 2400$ $A_2 = 400$ $A_2 = 5.14$

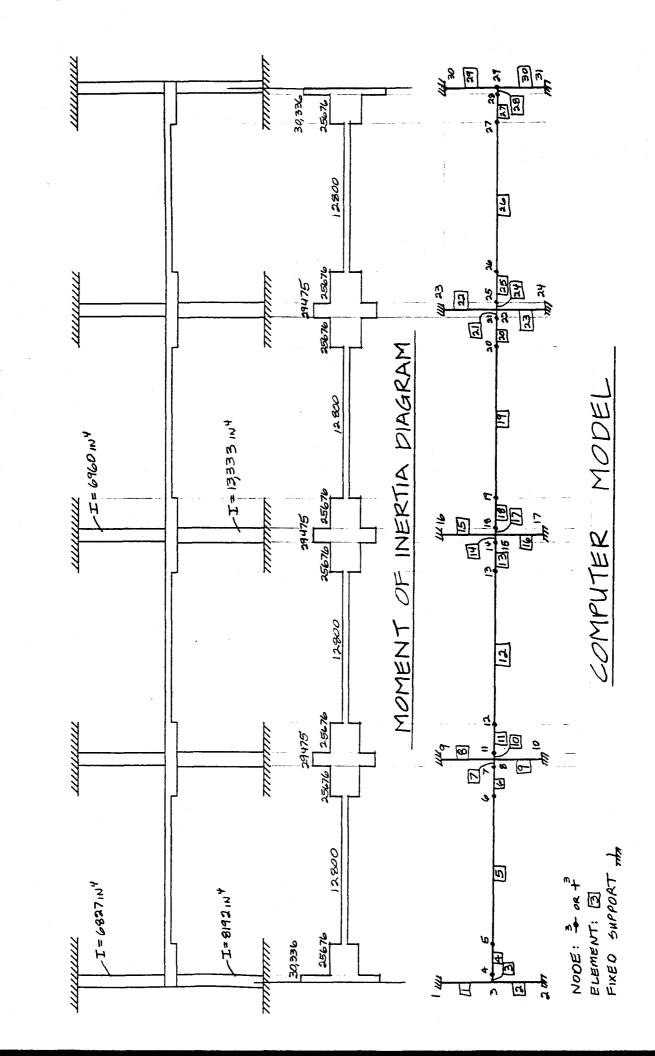
$$I_g = 12800 + 2400(.86)^2 + 533 + 400(5.14)^2$$

= 25,676

opies to:

Page of

☐ Memorandum



Ecs = 3.122 x 10 psi Ecc = 3.491 x 10 posi

BPLW

chitects & Engineers, Inc.

2400 Louisiana Blvd. NE 4BC #5 Suite 400 querque, NM 87110 881-2759 63 East Main Street Suite 602 Mesa, AZ 85201 (602) 827-2759 Project GSA MAP Room

Subject SLAB ANALYSIS

Project No. 91062,004 Date 2/20/92 By JMW

☐ Memorandum

☐ Telephone record

☐ Note to the file

☐ Minutes of meeting

☐ To be typed

GRAVITY LOADS:

DEAD: SLAB = 100 psf

FLOORING = 2 psf

CEILING (SUSP. SYS, PLASTER,

ACC. TILE) = 14 psf

MECH. 4 psf

MECH. 4 psf ELEC. 2psf 122 psf

LIVE:

50 psf

CONSIDER MAP FILES AS FIXED EQUIP, (DEAD LOADS). FLOOR TO FLOOR HEIGHT = 11'-0"COLUMN TO COLUMN SPACING: 25'-0"SLAB BEAM WIDTH = 25'-0"

$$W_{0L} = 25(.122) = 3.05 \text{ klf}$$

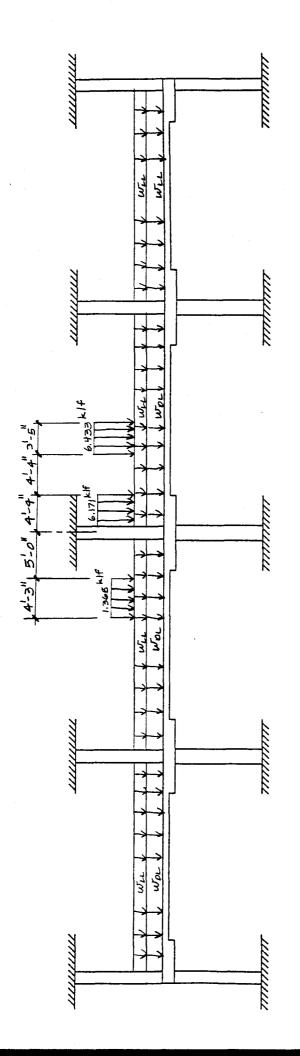
$$W_{LL} = 25(.050) = 1.25 \text{ klf}$$

Copies to:

Page of

BPLV chitects & Eng		Project No. Date			OT6 ON0 OM	☐ Memorandum ☐ Telephone record ☐ Note to the file ☐ Minutes of meeting ☐ To be typed		
C#5 Suite 400 querque, NM 87110) 881-2759	Suite 602 Mesa, AZ 85201 (602) 827-2759	Project No.	Date	By	_			
E 3	30 4100° 41-8° 4100° 4100° 5100° 5100° 910	p"	# ·		3-6" 8-8" 6-0" 4-3"	G2 G3		
E4 1			F4			G4 -		
Copies to:						Page of		

Designing to Shape the future



SLAB-BEAM "F"

OGRAM : General Frame Analysis v1.58 FAGE NO. /

PAGE NO. / TIME : Tue Mar 10 09:34:23 1792

L<u>w.</u> Inc.

GSA MAP ROOM 6433 - SLAB BEAM F

JOB NO. : 15

W	2	

E	N O D A L I N F O R N A T I O N NODAL COORDINATES SUPPORT CONDITIONS									
No .	X :==::================================	Υ	CODE	PX STIFF	PY STIFF	M STIFF				
Units		FT 1;		K /In	K /In	K -In /Dea				
1	0.000	22.000	;							
2	0.000	0,000	Same 2							
V 3	0.000	11.000								
4	0.830	11.000								
1 5	4,830	11.000								
6	20.830	11.000								
7	24.170	11.000								
3	25.000	11.000								
9	25.000	22.000	F.							
10	25,000	0.000	F							
_i 1	25.830	11.000								
2	29.170	11.000		•						
3	45.840	11.000								
14	49.170	11.000								
1 .5	50.000	11.000								
. 6	50.000	22.000								
17	50.000	0.000	F							
_1.8	50.830	11.000			•					
19	54.160	11.000								
20	70,830	11.000								
_21	74.170	11,000								
22	75,000	11.000								
23	75.000	22.000	-							
24	75.000	0.000	F							
T 5	75.830	11.000								
26	79.170	11.000								
27	95.170	11.000								
28	99.170	11.000								
8	100.000	11.000								
- 50	100.000	22.000	F							
31	100.000	0,000	F							

	th manus major copy, there where spens graph man's share or in coming comme princip finder three coming appair funds region air							oren marris salaur anlere tenne tinner tennes before tenne tenner
		ELEME	NTI	V F O R M A	TIO	N		
	NE	PE	ELEM	BETA	FROF	ELEM	NE	F'E
14	NODE	NODE	LENGTH	ANGLE	TYPE	TYPE	HINGE	HINGE
China hand there were retain the		Units		reerreerre Dec				ne and min the see had been that he had be
				about and				
1	3	1	11.000	90,00	6	BEAM		
2	2	3	11.000	90.00	8	BEAM		
3	3	4	0.830	0.00	4	BEAM		
4	4	E27	4,000	0.00	2	BEAM		
5	5	6	16.000	0,.00	1	BEAM		
_ 6	- 6	7	3.340	0.00	2	BEAM		
7	7	8	o.830	0.00	3	BEAM		

OGRAM : General Frame Analysis vi.58

 $\mathbb{E}^{||}$

PASE NO. 2

TIME : Tue Mar 10 09:34:32 1993 INC.

GSA MAP ROOM 6433 - SLAB BEAM F

JOB NO. : 10

NO NO	NE NODE	E L E M PE NODE	E N T I N ELEM LENGTH	F O R M A BETA ANGLE	T I O PROP TYPE	N ELEM TYPE	NE HINGE	PE HINGE	
8	of the control of the	in ne po no no no no no no el 166 a V	11,000	90.00	ine er in de de de de d Se	BEAM	The same same best time and the same same same same same same same sam	and place paper some gather allow their two two trees in	
9	10	8	11.000	90,00	7	BEAM			
10		1 1	0,830	0,00	3	BEAM			
1	11	12	3,340	0.00	yanny Alam	BEAM			
4 2	1.2	1.3	16.670	0.00	<u>i</u> .	BEAM			
13	13	1.4	3,330	0.00	2	BEAM			
4	14	15	0.830	0.00	3	BEAM			
. 5	15	16	11.000	90.00		BEAM			
l ó	1.7	15	11.000	90,00	7	BEAM			
4 7	15	18	0.830	0.00		BEAM			
(8	18	19	3.330	0.00	2	BEAM			
9	19	20	16.670	0.00	i	BEAM			
20	20 -	21	3,340	0.00	(7) .6	BEAM			
2.1	21		0.830	0.00	3				
22	garg garg alle alle	23	11.000	90.00	banka Seka Sekal	BEAM			
23	24	4,4	11,000	90.00	7	BEAM			
4	eng eng La Ala	25	0.830	0.00	3	BEAM			
25	77. 927 21. 527	26	3.340	0.00	200	BEAM			
26	26	27	16.000	0.00		BEAM			
<u> -2</u> 7	27	28	4,000	0,00		BEAM			
28	28	29	0.830	0,00	44	BEAM			
29	27	30	11.000	90.00	۵	BEAM			
30	34	29	11.000	90.00	8	BEAM			

	PROPERT SECTION	Y INF	J R M A T I	O N	
, ()	NAME	MODULUS	AREA	Ţ	DIST
	Units:	K /In 2	In2	In4	Ft
1	SLAB BEAM ONLY	3.1e+003	2.4e+003	1.28e+004	
2	SLAB BEAM @ DROP PAN	3.1e+003	2.8e+003	2.57e+004	
3	S.B. @ INT. COLUMNS	3.1e+003	2.8e+003	2,95e+004	
4	S.B. @ EXT. COLUMNS	3.1e+003	2.8e+003	3.03e+004	
5	6TH FLOOR INT. COLUM	3.5e+003	289	6.96e+003	
<u>~</u> 6	6TH FLOOR EXT. COLUM	3.5e+003	320	6.83e+003	
7	5TH FLOOR INT, COLUM	3.5e+003	400	1.33e+004	
· 💳 8	5TH FLOOR INT. COLUM	3.5e+003	384	8,19e+003	

ELEMENT LOAD INFORMATION LOAD LOAD LOAD EC DIST SYS SPEC FΥ CASE TYPE DIST

Units: Ft K /Ft K /Ft Ft-K /Ft

O**C**AM : General Frame Analysis v1.58

PAGE NO. T

TIME : Tue Mar 10 09:34:36 1992 LW. INC.

E 0.53 0.00 -6.43 0.00

B GSA MAP ROOM 6433 - SLAB BEAM F

JOB NO. : 15

N u 2		and will a printer printer server server any order and the first			100 MH 250 MB 551 CV 700 MH 400 CV 000			
E LOAD	E L E LOAD	M E N T LOAD	L O) DIST	4 D	INFOR	MATIO	N	
NO CASE	TYPE	SY8	SPEC		DIST	PX	FΥ	4 A.1
	omet fabre often interpreted speak at part frage deep interpreted speak at	ngga milyan dinga manga ta ini pinga tau lipun gami takin i gani Milan kanga ngang tagan pinga ngang ngang tagan tagan t	18: 18: 18: 12: 12: 16: 16: 1		142 (22 can all 122) spr 37 4 (163 414 (1 2) 21)	2 are are the file less the flar cast PM. Gra		der der der sen der der bei det für
seription ement List	: DL	.10-14.17	-21,24-	28				
	UNIF	GLO	FRAC	8	0.00	0.00	-3,05	0,400
•					1,00	0.00	-3.05	0.00
spiction								
		.10-14.17						يعريض يعر
2 2	UNIF	GLO	FRAC	B	0.00	0.00	-1,25	0.00
ė,	<u>:</u>			E	1.00	0.00	-1.25	0.00
estiption ement List		FILES						
		GLO	FRAC	B	0.69	0,00	-1.37	0.00
				2-	0,95	0.00	-1.37	0,00
spriction each List	: MAP	FILES						
	UNIF	GLO	FRAC	B	0.00	0.00	-6.17	0.00
		/ 		E	1,00	i. öö	-6.17	0.00
suriotion ement List	: MAP	FILES						
a 5 3		GLO	FRAC	E	0.00	0.00	-6.17	0.00
				E	0.01	0.00	-6.17	0.00
seriotion e ent List	: MAP	FILES						
6 3	UNIF	GLO	FRAC	Б	0.31	0.00	-6.43	0,00

GRAM : General Frame Analysis v1.58

OGRAM : General Frame Analysis v1.58 LW. INC.

TIME: Tue Mar 10 09:35:02 1991

0.0000

-0.0531

B	G9 2	A6	MAP ROOM	4 6433		SLAB	BEAM	[=				J08 NO.	# > 4 150
	-51 AL S		LOAD	N O	D A	j	7 T	S P L	A C E M	IENT	8)2	
NO			COMB			DX			DY		ROTATION		
			der 144 (44) 461 (52 VE) 151 (Units	# #	In			In		Dea	ar agricultura de la composição de la comp	take may part their Mer-
AD.	COM	4BI	NATIONS	13 7									
M	1	# 	1.40 X 1.70 X		1 2								
			1.40 X		3								
MB	2	; (-	1.00 X 1.00 X		1 2								
		+∙	1.00 X		3							1000	
MB	3	<u>.</u>	1.00 X 1.00 X	CASE	1 2				··				

0.000

-0.0019

4E	4	12 18	1 . 1	OO.	Ă	CASE	1
		··*	1 .	00	X	CASE	3

ME	5	/4 #	1.40) X	CASE	i
		-1-	1.70	X	CASE	2

4

·h	-L	that the that that that that	We all the set of the	Contract Con
	errog Aller	0.000	0.0000	0,0000
l	3	o.ooo	0.000	0.000
-	4	0.000	0.0000	0.0000
1	5	0.0000	0.0000	0.0000
_ 2	1	0.0000	0,000	0.0000
	2	0.000	0.000	0.0000
	3	0.000	0.000	0.0000
	4	0.000	0.000	0.0000
	E	0.0000	0.0000	0.0000
•				
3	1	0.0008	-0.0039	-0.1111
	2	0.006	-0.0026	-0.0747
	3	0.0001	-0.0026	-0.0745

0.000

0.0005

•			a. a. a. a. a. a.
5	0.0002	-0.0039	-0.1108
1	0.0008	-0.0247	-0.1275
2	0.0006	-0.0166	-0.0857
3	0.0001	-0.0166	-0.0855
4	0.005	-0.0118	-0.0409
5	0.0002	-0.0247	-0.1271

Obram : General Frame Analysis v1.59

PAGE NO. 3

TIME: Tue Mar 10 09:35:02 1992

JOB NO. : 15

LW. INC. B GSA MAP ROOM 6433 - SLAB BEAM F IN 2

	LOAD	N O D A L D I	SPLASEMEI	S T V	
	COMB	DX	DA	ROTATION	and the case control of the case can distribute the
5	1	୍. ୦୦୧	-0.1516	-0.1603	
	2	0.006	-0.1020	-0.1078	
	3	0.0001	-0.1016	-0.1074	
	4	0.0005	-0.0724	-0.0766	
	, W	0.0001	-0.1511	-0.1597	
		0.0007	е отел	0.1249	
6	1	0.0007	-0.0784		
.	2 3	0.0000 0.0000	-0.0527 -0.0520	0.0840 0.0833	
	4				
		0.0005	-0.0376	0.0598	
1	5	0.0001	-0.0773	0.1239	
) 7	1,	o.007	-0.0144	0.0444	
_	7	0.0005	-0.0097	0.0299	
	3	0.0000	-0.0095	0,0289	
	4	0.0005	-0.0069	0.0215	
	Smith Sales	0.0001	-0.0142	0.0429	
8	1	0.007	-0.0092	0.0151	
	Z	0,0005	-0.0062	0.0103	
j	, , , , , , , , , , , , , , , , , , ,	0.000	-0.0062	0.0091	
	23,	0,0005	-0.0044	0.0076	
	5	0.0000	-0,0092	0.0136	
9	1	0.0000	0.0000	0.000	
h '	2	0.0000	0.0000	0.0000	
	3	0.0000	0.0000	0.0000	
	4	0.0000	0.0000	0.0000	
j.	E	0.000	0.0000	0.0000	
i O	1	0.0000	0.000	0.0000	
I .	2	0.0000	0.000	0.0000	
•	3	0.000	0.000	0.0000	
_	4	0.000	0.0000	0.0000	
	5	· · · · · · · · · · · · · · · · · · ·	0,000	0.000	
. 1	1	0.0007	-0.0089	-0.0107	
Ī [*]	2	0.0005	-0,0059	-0.0071	
	3	0.0000	-0.0057	-0.0086	
	4	0.0005	-0.0062	-0.0088 -0.0046	
	*+	المسترد المسائد المساد	**************************************	-U,UU40	

OMAM: General Frame Analysis vi.58

TIME : Two Mar 10 09:35:03 1990

LW. INC. B 65A MAP ROOM 6433 - SLAB BEAM F

	1	L.(±	11 dt 17	177	-U71-0X	91 U.S	3. 7	7 A.
					JOB	NO.	23 <u>.</u>	1 C7.

				MAN THAT OUR THE WAS ARE THE TOTAL OF THE WAS ARRESTED THE THE	*** Mary Mary 1987; 2012; Mary Mary Mary 10-11 (10-12 10-14
		NODAL DI	SPLACEME	NTS	
E J	LOAD COMB	ĐX	DY	ROTATION	
	AND AND THE STATE OF THE STATE	The training of the time and the training training training to the training training training training training	art and that Mar book has been over him one, and they that Mar him other and	מי לעים נוסף לועל, מושה השל השני השל השל נוסף נוסף שלני ביני נוסף	iori from een uitti riite suon aust 250 idin 210 viilli 1800 iliin 180
12	Ţ	0,0007	-0.0451	-0.0805	
	2	0.0005	-0,0302	-0.0540	**
	3	0,000	-0.0320	-0.0567	
	4	0.0005	-0,0209	-0,0375	
	1	0,0000		-0.0343	
13	1	0.0007	-0.0394	0.07 81	
<u></u>	2	0.0005	-0.0240	0.0520	
ł	3	0.0000	-0.0368	0.0600	
	4	0.005	-0.0153	0.0346	
_	5	0.0000	-0.0548	0.0873	
ı					
<u> 1</u> 4	1.	0.0007	-0.0088	-0.0032	
_	2	0.0005	-0.058	-0,003U	
	3	0,000	-0,0073	0.0166	
3	4	0.0005	-0,0037	-0.0081	
	\	0,0000	-0.0109	0.0246	
15	1	0.0007	-0.0118	-0.0328	
1	2	0.005	-0.0081	-0.0235	
İ	-	-0,000	-0.0058	0.0000	
,	4	0.0005	-0.004	-0.0235	
		~0.000	-0.0087	0.000	
16	1	0,0000	0.0000	0,000	
l	2	0.000	0,0000	0.0000	
1	3	0.000	0,000	0.000	
-	4	0.000	0.0000	0,000	
	S	0.000	0,0000	0.000	
,					
17	1	0.0000	0.000	0.000	
	2	o. 0000	0.000	0.000	
	3	0.000	0.000	0,000	
	. 4	0.000	0,0000	0.000	
	5	0.0000	0.0000	0.000	
J					
18	1	0.007	-0.0208	-0.0 68 9	
	2	0.0005	-0.0144	-0.0482	
	3	-0.0000	-0,0073	-0.0166	
	4	0.0005	-0.0122	-0.0434	
1	5	-0.000	-0.0109	-0.0246	

OGRAM : General Frame Analysis v1.58 PAGE NC. 7

PAGE NO. 7

LW. INC. FR GSA MAP ROOM 6433 - SLAB BEAM F

TIME : Tue Mar 10 09:35:04 1992

JOB NO. : 15

1.5	DOM	17441	t.tmmi.i	0400	ئىلىن ت	f deat	Aur. 2007	•			 	de ord
W	 2											
: 2111 (7)	 :		## ## ## ##	n :::: ::: ::: ::: :::		====		2012	- Trong that shape and space that year copy space space of the copy and about the copy and the c	:r: :::: :::: ::::	 ==: ==: = :	Z 20. 50.

	LOAD	NODAL DISPLACEMENTS						
MO n e c	COMB	DX	DY	ROTATION				
	מהו אנו מצ' הנו שני הנו חב מנו בנו מבו מ	578 (20) (56) (60) (50) (50) (50) (50) (50) (50) (50) (5	ett lius 1940 älle. Sine fan die last die auf die hat liet in die 1971 hau 207 hau de 1971 i		act the out and the set six the fall out the six time.			
9	1	`o,oo7	-0.1060	-0.1573				
	2	0.0005	-0.0734	-0.1036				
	3	-0,0000	-0.0348	-0.0600				
	4	0.005	-0.0627	~0.0911				
	Control of the Contro	-0,0000	-() _n ()=A(~(.,0893				
20	1	0.0005	-0.0844	0.1384				
_	2007	0.0004	-0.0583	0.0953				
	3	-0,0000	-0.0320	0.0567				
	4	0.0004	-0.0490	0.0788				
	5	-0.0000	-0,0475	0.0843				
	5 6 7							
21	i	0.0005	-0.0150	0.0446				
		0.0004	-0.0104	0.0313				
	3	-0.0000	-0.0042	0.0086				
	4	0,0004	-0.0086	0.0288				
		-0.0000						
		-0. OOOO	-0.0092	୍.୦128				
22	e.	ans on site ans ear	and the state of	A 204 4 4				
	1	0.0005	-0.0101	0.0111				
	2 3	0.0004	-0.0048	0.0085				
		-0.0000	-0.0062	-0.0071				
	4	0.0004	-0,0050	0.0111				
	100 100 1	-0,0000	-0.0092	-0.0136				
_23	1	o.ooo	0.000	0.000				
	2	0.000	0.000	0.0000				
•	3	0.000	0.0000	0.000				
	4	0.000	0.000	0.000				
	S	0.0000	0.0000	o, ooo				
24	1	0.000	0,000	0.000				
	<u> </u>	0.000	0.000	0,000				
	3	0.000	0.000	0.000				
	4	0.000	0,000	0.000				
	5	0.000	0.0000	0,000				
25	1	0.0005	-0.0110	-0,0201				
	2	0.0004	-0,0072	-0.0125				
-	. 3	-0.0000	-0.0095	-0.02 89				
-	4	0.0004	-0,0045	-0.0042				
	5	-0.0001	-0.0142	-0.0429				
				es de' d'ibbay s'				

OSKAM : General Frame Analysis vi.58

PAGE NO. 8

TIME: Tue Mar 10 09:35:05 1992 LW. INC.

B GSA MAP ROOM 6433 - SLAB BEAM F

JOB NO. : 18

	N	j		
П				

	LOAD	NODAL DI	SPLACEME	NTS	
NUT NUT	COME	DX	${ m DY}$	ROTATION	ing are and the first one of the control of the control of the
	ď	0.0005	0.000	-0.1084	
- £0	1 2	0.0003	-0.0607 -0.0401	-0.0722	
_	- G	-0.0000	-0.0520	-0.0833	
	ے 4	0.0004	-0.0250	-0.0480	
	5	-0.0001	-0.0773	-0.1237	
		TO: 00003			
3 27	1	0.0004	~0.1440	0.1512	
		o.ooos	-0.0966	0.1013	
	3	-0.0001	-0.1016	0.1074	
	4	0.0003	-0.0670	0.0701	
_	5	-0.0001	-0.1511	0.1597	
28	1.	0,0004	-0.0237	0.1215	
_	2	0,0003	-0.0159	0.0815	
	-33	-0,0001	-0.0166	0.0855	
	4].	0.0003	-0.0111	0.0566	
_	577 t	-0.0002	-0.0247	0.1271	
29	1.	0.0004	-0.0038	0.1059	
	2	0.0003	-0.0026	0.0710	
	3	-0.0001	-0.0026	0.0745	
	4	0,0003	-0.0018	0.0493	
	5	-0.0002	-0.0039	0.1108	
_30	1	0.0000	0.000	0.000	
	2	0.0000	0,0000	0.000	
		0.0000	0.0000	0.000	
	4	0.000	0.000	0.000	
	5	0.0000	0.0000	0.000	
_31	.4	0.0000		0.0000	
■	1	0.0000	0.0000 0.0000	0.0000	
	<u>.</u> 3	0.0000		0.0000	
	<i>ು</i> _4	0.0000 0.0000	0.0000 0.0000	0.0000	
_	5	0.0000	0,0000	0.0000	
	Ü		O. OUCO	0.0000	
		ELEME	nt report		are well and the same state of
L	LOAD NODE		SN CONVENTION : B SHEAR MOM	EAM DESIGNERS	EFL DIST

·K

K -Ft K -Ft /In Ft

Units : K

:OBRAM : General Frame Analysis vi.58

PAGE NO. 1

LW. INC.

BB GSA MAP ROOM 6433 - SLAB BEAM F

TIME : Tue Mar 10 09:35:08 1797 JOB NO. : 10

M 2

NO		LOAD !	NODE NO	E L E M	ENT REPO SIGN CONVENTION SHEAR			DIST
	CON	18INATIO	NS:					where estate taken home serve com-
1B	1	+ 1.70	X CASE X CASE X CASE					
	en e	+ 1.00	X CASE X CASE X CASE	2				
	3		X CASE X CASE					
	4		X CASE X CASE					
	5		X CASE X CASE					
		1	3 1	33.2136 33.2136	-16.0145 -16.0145	117.2517 -58.9077	-0.0380	3,66
		2		22.3345 22.3345	-10.7736 -10.7736	78.8734 -39.4357	-0.0255	కె.చచ
		3	3 1	22.3053 22.3053	-10.6810 -10.6810	78.3015 -39.1894	-0.0254	3,67
		4	3	15.8504 15.8504	-7.6686 -7.6686	56.1116 -28.2435	-0.0182	3.66
			3 1	33.1726 33.1726	-15.8849 -15.8849	116.4507 -58.2828	-0.0378	3.67
		1	2	-39.9563 -39.8563	-18.9705 -18.9705	69.3329 -139.3422	0.0379	7.33
		2		-26.8014 -26.8014	-12.7541 -12.7541	46.6057 -93.6889	0.0255	7.30
		3	2 3	-26.7663 -26.7663	-12.7828 -12.7828	46.8395 -93.7718	0.0254	7.33
		4	2	-19.0205 -19.0205	-9.0381 -9.0381	32.9896 -66.4296	0.0181	7.33
		5	2 3	-39.8072 -39.8072	-19.0108 -19.0108	69.6602 -139.4583	0.0378	7,33

OCAM : General Frame Analysis v1.58 PAGE NO. :C

LW. INC.

TIME: The Mar 10 09:35:13 1992

B 03A MAP ROOM 6433 - SLAB BEAM F

JOB NO. : 15

	LOAD	NODE	ELEM!	ENT REPI	D R T S N : BEAM DES	SIGNERS	e 2000 teen takke filmbol kandi medi 20
NO	COMB	NO	AXIAL	SHEAR	MOMENT	MAX MOM/DEFL	DIST -
		-		AR, MAN ANT NATA GAN ANN ANN MAN DATA MAN ANN ANN DAN DAN S	en am am der ferr inn der ein sen mit der die	n ind dien den die die die den die den die die den den die den den	d manufacture ways to the manufacture of manufacture of manufacture of the manufacture of
<u> </u>	1	**************************************	-2.9560	73.0698	-256.5939		
		4	-2.9560	67.7620	-198.1487	0.004	0.41
	2	3	-1.9805	49,1359	-172.5625		
		4).	-1.7805	45.5669	-135,2608	0.0002	0.41
1	3	3	-2,1019	49.0716	-172,0732		
**		4	-2.1019	45.5026	-132.8249	0.0002	0.41
4	4.		-1.3695	34,8709	-122.5412		
_	-¥	4	-1.3695	32,3394	-94.6489	0.0002	0.41
		f	in the best bear it south	mad also are traditional of 1100	A THE BOOK OF THE A	ى ئىلىكىكىكىكىكىكىكىكىكىكىكىكىكىكىكىكىكىكى	No. 18 No.
	5	Topic Topic	-3,1259	72.9798	-255.9089		
		4	-3,1259	67 .6719	-197,5385	0,0004	0.41
	1	4	-2.7560	67.,7620	-198.1487		
-		Tinh.	-2.9560	42.1820	21.7392	0.0035	1.58
	2	4.	-1,9805	45.5669	-133,2608		
	.20-0-	ETT.	-1.9805	28.3649	14,6070	0.0024	1.58
	3	4	-2.1019	45.5026	-132,8249		
		1	-2.1019	28.3026	14.7856	0.0024	1.58
	4	4	-1,3695	32,3394	-94.6489		
	·	5	-1.3695	20.1394	10.3088	0.0017	1.58
	5	4	-3.1259	67 <u></u> 6719	-197,5385		
		Ś	-5.1259	42.0919	21.9893	0.0035	1.58
ä	1	ij	-2.9560	42,1820	21.7392	160.8572	6.60
		6	-2.9560	-60.1380	-121.5092	-0.1679	ing my min
	<u> </u>	5	-1,9805	28.3669	14,6070	108.1748	6. 60
		6	-1.9805	-40,4331	-81.9219	-0.1129	7.39
	3	5	-2.1019	28.3024	14.7856	107,9296	6.50
		4	-2.1019	-40.4974	-82.7724	-0.1125	7.38
	4	5	-1.3695	20.1394	10.3088	76 .8 001	6.60
		5	-1.3695	-28.4606	-57.8402	-0.0802	7.59
	5	5	-3.1259	42.0919	21.9893	160.5139	6. 58
		6	-3.1259	-60.2281	-123.0999	-0.1673	7.38

Octom : General Frame Analysis vi.58

PAGE NO. 11 Time : Tue Mar 10 09:35:23 1997

LW. INC. BM GSA MAP ROOM 6433 - SLAB BEAM F

IN 2

J	OB	NO.	ã	15

	e yest on me	to be green your comme	ELEMENT REPORTS NODE SIGN CONVENTION: BEAM DESIGNERS							
	COMB	NODE NO	AXIAL	SIGN CUNVENTIC SHEAR	MOMENT	MAX	MOM/DEFL	DIST		
	·	AMEN ARTE PARKS STATE ARMY SHEET SELECT	THE PERSON WAS THE PERSON WHEN THE PERSON WAS THE PERSON OF THE PERSON O	795 - VII. M.	A court of the real graphs again, speed which will confir with both for		sweek color select comes again visit cross true also	40424 10424 12414 044 W -1721 140		
	1	6	-2.9560	-60.1380	-121.9092					
	•	7	-2.9560	-81,4973	-358.4403		0.0070	1.81		
		ŵ	-1.7805	-40,4331	-81,9219					
		T.	-1.9805	-54.7951	-240.9529		0,0047	1.81		
	~~eg. 	· 6	-2,1019	-40,4974	-82.7724					
	•****	7	-2.1019	-54.8594	-242.0182		0.0048	1.81		
بام. دام		,	obian (b. oli (in) ili 2	Control of Section 19	oder The San Her San San San San		W. W. 10-87.1131.70	ele je kama ⁿ ele		
	4	· 6	-1.3695	-28.5506	-57.8402					
	•	7	-1.3495	-38,8476	-170.5988		0.0034	1.81		
		6	-3,1259	-60,2281	-123.0999					
	* en:	7	-3,1259	-81,5874	-359.9317		0.0071	1.91		
			The second section of the section of	and the same services	Seed Stand Co. H. C. Seed Stand		the William that it was	ade of bear its		
1			رمان ال معمود والمعار	and the first the second	والمراجع المراجع المرا					
	j.	7 ° 8	-2.9560 -2.9560	-81,4973 -86.8052	-358.4403 -428.2858			es esem		
		0	TA - 7007	TOOLBOUZ	-426.2600		0.0006	0.42		
	2	7 .	-1,9805	-54,7951	-240.9529					
		8	-1.9805	-58.3641	-287.9139		0.0004	0.42		
	3	7	-2.1019	-54.8594	-242.0182					
	122.0	8	-2.1019	-58,4284	-289.0326		0.0004	0.42		
				make 2100 30 A Night Mad C	ordern faculty of 1881 that these objects		tan gerala tan tan sa	-w- 11 4 aft		
*	Æj.	7	-1.3695	-38.8476	-170.5988					
j		8	-1.3695	-41,3791	-203,8928		0.0003	0.42		
_		7	-3.1259	-81.5874	-359.9317					
		8	-3.1259	-84.8952	-429.8519		0.006	0.42		
#50	3 *	(C)	70.0693	oring a complaining only	رسو و رسونوست					
	<i>3.</i>	8 9	70.0693 70.0693	2.1220 2.1220	-15. 726 9 7 .615 2		0.0051	3.71		
		•	is the management of their	office 10 - ole alian olim but	بالكرائية المستأنية المستأنية		War WWW.	end as it is		
	2	8	47,1012	1,4329	-10.6257					
		9	47.1012	1.4329	5.1363		0.0035	3.71		
-	uniq. Sami	8	47.3305	1.3292	-9.7555					
1	5.L.1	9	47.3305	1.3292	4.8662		0.0031	3.67		
				neer our least adjuste at these	2 H. Soul best best about		ar the test but back also	Tagen Mar Seed of		
	4.	8	33,3423	1.0465	-7,7898					
		7	33,3423	1.0465	3.7217		0.0026	\$. 72		
	5	8	70,3904	1,9769	-14,5085					
		Ŭ Ģ	70.3904	1.9769	7,2371		0.0046	3.67		
			and the second of the second	on H or a back or	علام المنظمة ا		www.wiscons.com	الاشتاء والسا		

GWAN : General Frame Analysis v1.58 PAGE NO. 12

LW. INC.

TIME : Tue Mar 10 09:35:26 1992

18 GSA MAP ROOM 6433 - BLAB BEAM F

M. 2

JOB	MO.	j,	1

	5 200 St. 200	to a hour have down	ELEM		0 R T 8	and the second of a special personal				
N	LCAD COMB	NODE NO	AXIAL	SIGN CONVENTION SHEAR	MOMENT	SIGNERO MAX MOM/DEFL	DIST			
1 9	1	10	-96.7818	4.4109	-16,4902					
**	•	8	-96,9818	4.4109	32,0293	-0,0052	7.37			
	2	10	-65.1920	2.9910	-11.1925					
_		8	-45.1920	2.9910	21.7084		7,37			
1	3	10	-65,5094	2.5425	-9,4105					
		8	-65.5094	2.5625	18.7768	-0.0031	7.34			
	4	- 10	-46.1485	2,2461	-8.4569					
	•	8	-46.1485	2.2461	16.2501	-0.0026	7.38			
*	<u> 5</u>	10	-97.4261	3.8109	-13.9954					
	3444"	3	-97.4261	3.8109	27.9250	-0.0046	7.34			
. :										
	4	0	-0.6671	80,2459	-380.5297					
		1.1	-0.6671	74.9381	-316.1284	0.0006	0,41			
	2	8	-0.4224	53,9291	-255.5798					
		11	() <u> </u>	50.3601	-212.2998	0.0004	0.41			
	3	3	-0.8686	54.4115	-260.5003					
		11	-0.8494	50.8425	-216.8199	0.0004	0.41			
	4	8	-0.1599	38.1118	-179,8529					
	·	1 1	-0.1699	35,5803	-149.2707	0.0003	0.41			
	5	8	-1,2918	80.9213	387,4185					
	.	11	-1.2918	75.6134	-322.4566	0.0006	0.41			
1	1.	11	-0.6671	74,9381	-316.1284					
		12	-0.6671	53.5788	-101.5053	0.0061	1.52			
		1 1	-0.4224	50.3601	-212,2798					
	*****	12	-0.4224	35.9981	-58.0816	0.0041	1 = 27			
4.	Z	1 1	-0.8686	50.8425	-216.8199					
O		12	-0.8686	36.4805	-70.9905	0.0042	1.55			
	л	n n	معدر مراي ال	mande and another many against						
	ये	11 12	-0.1699 -0.1699	35.5803 25.3 9 33	-149.2707 -47.4448	0.0029	1.52			
						that the that had been also in	in a sub-ilia			
	5	11 12	-1.2918 -1.2918	75.6134 54.2541	-322.4566	y the section of the	d ETT			
-		A A	-1,271C	U47 a ZU4 l	-105,5778	0.063	1.53			

ObtAM : General Frame Analysis v1.58 PAGE NO. 13

LW. INC.

TIME : Fue Mar 10 09:35:38 1992

B**)** 68A MAP ROOM 6433 — SLAB BEAM F IN**J** 2

JOB NO. : 15

	LOAD	NODE		ENTREP SIGN CONVENTIO		or to a some or	
NO NO	COMB	NO NO	AXIAL	olom Lunytmilu Shear Wallanda an	MOMENT		DIST
	*1	4.53	.c. 7 7 77 4	See that the see that the see that	a pro a tomo pro ance some	ുന്ന അത്ത്യ	8,38
<u>1. 25.</u>		12 13	-0.6671 -0.6671	53.5788 -61.4877	-101,5053 -122.9489	122.9422	8.33
		12	-0.4224	35., 9981	-68,0816	82.600	8,57
		13	-0.4224	-41.7271	-84.0631	-0.0857	8.32
	Target Canada	12	-0.8686	36,4805	-70.7905	83.7567	8.48
-		1.5	-0,8686	-35,2005	-60.3218	-0.0884	8.42
	4.	12	-0.1699 -0.1699	25.3933 -31.4944	-47,4448 -66,5277	58.2632 -0.0600	8.33 8.28
						The second section	
	5	12	-1,2918 -1,2918	54.2541 -52.3505	-105.5778 -89.7112	124.5638 -0.1314	8.48 8.42
	1		-0.6671	-51,4877	-122.9489		
		14	-0.6671	-82,7831	-363.1599	0.0071	1.20
	2	13	-0.4224	-41.7271	-84.0631		
		14	-0.4224	-56.0461	-246.8554	o.048	1,80
1	Z	13 14	-0.8686 -0.8686	-35.2005 -49.5195	-60,3218 -201.3806	0.0038	1.82
(B)				The was the second	maurradud	v.vvaa	A : SPA
	4	13 14	-0.1699 -0.1699	-31,4944 -41,6509	-66.5277 -188.3145	00037	1.80
\	, . ,					and the second	all to be the
	5	13 14	-1.2918 -1.2918	-52,3505 -73,6459	-99,7112 -299,4 95 2	0.0054	1.82
	1	14	-0.6671	-92.783i	-363.1599		
		15	-0.6671	-88,0909	-434.0726	0.004	0.42
		14	-0.4224	-56.0461	-246.8554	90 - 90 - 90 - 90	Ar. High room
		15	-0,4224	-59.6151	-294.8548	0.0004	0.42
-	3	14 15	-0.5484 -0.5484	-49.5195 -53.0885	-201.3806 -243.9630	0.0004	A 7
		10		and out as the find had out		Such and Automobile	0.42
	4).	14 15	-0.1699 -0.1699	-41.6509 -44.1824	-188,31 45 -223 . 9353	0,0003	(") _# 2" (")
	p===					ner ar i er her her her	Seed ## If other
	5	14 15	-1.2918 -1.2918	-73.6459 -78.9537	-299.4952 -362.8240	0,0005	0.42

OGAM : General Frame Analysis vi.58

LW. INC.

TIME : Tue Mar 10 09:35:42 1992

B📅 GSA MAP ROOM 6433 - SLAB BEAM F

JOB NO. : 15

HA(2									
144 121 22	:==: :==: :==	TE: 100 TEE 100	an 201 km na ka	 T	• === === === === == == == == == == == =	 	 	 	 	2.22 222 222

				ENTREP			
NO.	COMB	NODE NO	AXIAL	SIGN CONVENTIONSHEAR	MOMENT	SIGNERS MAX MOM/DEFL	
4							
	1.	15	90,2651	-4.8830	35,6493		
-		1.6	90.2651	-4.8830	-18.0640	-0.0113	3.65
į V	2	1 5	61,7008	-3,4879	25.4638		
1		16	61.7008	-3.4879	-12.9029	-0.0080	3.65
f	3	15	44.5358	0.0000	-0.0000		
		16	44.5358	0.0000	0.0000		
	4	15	48,7544	-3.48 79	25.4638		
		16	48.7544	-3.4879	-12.9029	-0.0080	J.65
			4				
	m;	15	66.2340	0,000	-0.0000		
		16	66.Z340	0.0000	0,0000		
**							
	1.	17.	-124.9344	-9.0207	32.7704		
_		. =	-124.5344	-9 . 0207	-66.4578	0.0112	7.32
	,	17	-85.3991	-6.4434	23,4074		
•		15	-85.3991	-6.4434	-47.4699	0.0080	7.33
	3	17	-61,6412	0.0000	-0,0000		
		15	-61.6412	0.000	0.000		
e">	4	17	-67.4801	-6.4434	23.4074		
	•	15	-67.4801	-6.4434	-47.4699	0.0080	7.32
	5	17	-91.6734	0.0000	-0.000		
	\ -	15	-91.6734	0.0000	0.0000		
1257	1	15	-4,8048	127.1086	-536.1797		
		18	-4.8048	121.8007	-432.8824	0.0008	0.41
	2		-3.3779	87. 484 8	-347.7885		
	. المناه	18	-3.3779	83.9158	-296.6572	0,0005	0.41
					Trade 1 New 19 Page 7-4 P Adda		
0	3	15	-0.8686	53.0885	-243.9630		
		18	-0.8686	49.5195	-201.3806	0,0004	0.41
_	4	15	-3,1254	72,0521	-296.3690		
		18	-3.1254	69.5206	-238.1163	0.0004	0.41
	5	15	-1.2918	78 .95 37	-362.8240		
		18	-1.2918	73.6459	-299.4952	0.0005	0,41

OGRAM : General Frame Analysis v1.5d

PAGE NO. 15

LW, INC. B<mark>osa map room 6433 - Slab bean f</mark> TIME : Tue Mar 10 09:35:47 1992

N 2

JOB NO. : 19

	LOAD	NODE	ELEM!	E N T R E P BIGN CONVENTI	ORTS		
NO	COME	MUDE NO See see see see see see see see see see	: AXIAL ::::::::::::::::::::::::::::::::::::	BACHA CAMPANA SHEAR BACHAMBANA	MOMENT	BIOMERO MAX MOM/DEFL	DIST
<u>.</u>		18	-4.8048	121.8007	-432.8824		
		19	-4.8048	71.7362	-110.6435	0.0077	1.49
	2	18 19	-3,3779 -3,3779	83.9158 49.0474	-296 .65 72 -75 . 2735	0.0053	1.49
). Design						
	3	18 19	-0.8686 -0.8686	49,5195 35.2005	-201.3806 -60.3218	0.0038	1.51
	4	18	-3.1254 -3.1254	69.5206 38.8147	-238.1163 -57.7381	0.0042	1.49
-		1. 7	'' # - A Alia tul −F		U/#/WU1		32 m TF V
	5	18 19	-i.2718 -i.2918	73.6459 52.3805	-299,4952 -69,7112	0.0056	in sufficient
É							
		19 20	-4.8048 -4.8048	71.7362 -69.2404	-110.6435 -145.2308	212.6343 -0.2159	7,40 8,04
	2	19 20	-3,3779 -3,3779	49.0474 -47.1849	-75.2735 -99.3141	146.7106 -0.1467	7.59 8.03
A	3	19	-0,8484	35.2005	-40.3218	83.7567	8.19
		20	-0.8684	-36.4805	-70.9905	-0.0884	8.25
	4	19 20	-3.1254 -3.1254	38.8147 -36 . 5601	-57.7381 -78.6774	122.6139 -0.1231	7.51 7.98
	5	19 20	-1.2918 -1.2918	52.3505 -54.2541	-89.7112 -105.5778	124.5638 -0.1314	8.19 8.25
		and her	nde 28 adapta v nda tana*	Sun' F & day Sun' F da	and the final of the first of the first of	The state of the s	had to selected
	1	20 21	-4.8048 -4.8048	~69.2404 -90.5997	-145.2308 -412.1637	0.082	1.81
	2	20 21	-3.3779 -3.3779	-47.1849 -61.5469	-99.3141 -280.8964	0.0056	1.80
						The Man See See See Seed Seed	and the transition
	, Si	20 21	-0.8686 -0.8686	-36.4805 -50.8425	-70.9905 -216.8199	0.0042	1.81
	4	20 21	-3.1254 -3.1254	-36.5801 -46.7671	-78.6774 -217.8674	0.0044	1.80
	S	20	-1.2918	-54.2541	-105,5778		
		21	-1.2918	-75.6134	-322.4588	0.0063	1.81

COKAM : General Frame Analysis v1.58 PAGE NO. 16

LW. INC.

TIME : Tue Mar 10 07:35:57 1992

78**0**, GSA MAP ROOM.6433 — SLAB BEAM F IN 1.2

JOB NO. : 15

	LOAD	NODE		SIGN CONVENTI	ORTS ON: BEAM DES		
O 	COMB	NO 	AXIAL	SHEAR	MOMENT	MAX MOM/DEFL	DIST
	ì	21	-4.8048	-90.5997	-412.1637		
•		22	-4,8048	-95.9075	-489.5641	0.0007	0.42
ļ	energy show	21	-3.3779	-61,5469	-280.8964		
		22	-3.3779	-55.1159	-333.4615	0.0005	0.42
	TS.	21	-0.8686	-50.8425	-214.8199		
4		and the	-0.8684	-54,4115	-260.5003	0.0004	0.42
	4	- 21	-3,1254	-46.7671	-217.8674		
		22	-3,1254	-49,2986	-257.7347	0.0004	Ø . 4.
4	807 3112	. 21	-1,2918	-75.6134	-322.4566		
	,,,,	22	-1.2918	-80.9213	-387.4185	0.0006	0.42
•							
Ŀ	1.	And the	77.2798	1.5536	-11.5103		
<u>.</u>		23	77.2798	1.5534	5.5797	0.0037	3.70
ľ	,	georg georg Lan Alan	52.2515	1,1925	-8.8293		
į		23	52.2515	1.1925	4.2886	0.0029	3.70
•	3	22	47.3305	-1.3272	9.7555		
		200	47.3305	-1.3292	-4.8442	-0.0031	3.47
	4.	gang gang Talan San	38,4927	15789	-11.6653		
		23	38.4927	1.5789	5,7032	0.0038	3.69
•		22	70.3904	-1.9769	14.5085		
	2444,	23	70.3904	-1.9769	-7.2371	-0.0046	3.67
	1						
Ţ.	1	24	-106.9617	3.2207	-12,0335		
		22	-106. 96 17	3.2207	23,3946	-0.0038	7.37
	215. 32.	24	-72,3205	2.4601	-9,1815		
		22	-72.3205	2.4601	17.8801	-0,0029	7.27
F	<u></u>	24	-65.5094	-2.5625	9.4105		
1		22	-65,5094	-2.5625	-18.7768	0.0031	7.34
•	4	24	-53.2770	3.2051	-11.9171		
ł	· T	22	-53.2770	3.2051	23.3384	-0.0038	7.35
,	5	O //		nga - ons 4 vesters	g mga yan yan amatan ya		
-	3	24 22	-97.4261 -97.4261	-3.8109 -3.8109	13.9954	0.0044	7.34
		22	-97.4261	-3.8109	-27.9250	0.0046	7.

De AM : General Frame Analysis v1.58

. PAGE NO. 13 TIME : Tue Mar 10 09:36:03 1992

LW. INC. B**il** 65A MAP ROOM 6433 - SLAB BEAM F

JOB NO. : 15

N 2

	LOAD	NODE	ELEM		ORTS ON: BEAM DES	TANERS	
NO	COMB	NO ====================================	AXIAL	SHEAR		MAX MOM/DEFL	
1					4.		
1	1	of the state	-3,1377	88,3340	-454,6593	the street on the	No. of the
			-3.1377	83.0241	-383.5448	0.0007	0.41
	22		-2.1103	59.4560	-306.7821		
			-2.1103	55.8870	-258.8847	0.0005	0.41
		grang grang Shin alam	-2.1019	58.4284	-289.0326		
		25	-2.1019	54.8594	-242,0182	0.0004	0.41
	4	and the second	-1,4793	42,4710	-222,7310		
	•		-1,4993	39.93 95	-188.5306	0.0003	0.41
		200	-3,1259	86,8752	-429,8519		
		en ta La cas	-3,1259	81,5874	-359.9317	0.0006	0.41
	<u>.</u>	25	-3.1377	83.0261	-383,5448		
		26	-3.1377	61.6668	-141.9077	0.0077	1.54
	<u>.</u>	25	-2.1103	55.8870	-258.8847		
		26	-2.1103	41.5250	-96,2065	0.0052	1,54
	3	25	-2,1019	54.8594	-242,0182		
		26	-2,1019	40.4974	-82.7724	0.0048	1.50
-	Ą	773 222 222 Sale	-1,4993	39.9395	-188.5306		
		26	-1.4593	29.7525	-72.1448	0.0038) EST (1)
_	5	27	-3.1259	81.5874	-359.9317		
		26	-3.1259	60 . 2281	-123,0999	0.0071	1.53
Wash.	1	~ /	-3,1377		e A a and any one	A F77 807 (A) 4 177 895	pm. 2 m
7	7	26 27	-3.1377	61.6668 -40.6532	-141.9077 26.2011	155.4179 -0.1577	9.64 8.75
•	yers,	m r	والمساومين في المان				
	\$2	26 27	-2.1103 -2.1103	41,5250 -27.2750	-96.2065 17.7941	104.2968 -0.1057	9.66 8.75
#					-4, 2 tt 2 2 t 4.		
خنه	<u> </u>	26 27	-2.1019	40.4974	-82,7724	107.9296	9,42
•		die s	-2.1019	-28.3024	14,7856	-0.1125	8,62
	4	26	-1.4993	29.7525	-72,1448	72.9722	5.75
		27	-1.4993	-19.0475	13.4959	-0.0730	8.81
	5	26	-3.1259	60.228 i	-123,0999	160.5139	9,42
_		27	-3.1259	-42.0919	21.9893	-0.1673	8,62

OCKAM: General Frame Analysis v1.58 PAGE NO. 18

LW. INC.

TIME : Tue Mar 10 07:36:11 1990

B GSA MAP ROOM 6433 - SLAB BEAM F N 2

JOB MO. : (5

	5 - 20% 20 3 %	k (entrem	ELEM		ORTS	r yers on the say a serie best to	
NO	LOAD COMB	NODE NO NO	AXIAL	SIGN CONVENTIC SHEAR	MOMENT	DIONERS MAX MOM/DEFL	DIST
1		•					
9 7	1.	27	-3.1377	-40.6532	26.2011		
_		28	-3.1377	-66.2332	-187.5717	0.0032	2.45
	<u>~</u>	27	-2.1163	-27,2750	17.7941		
		28	-2.1103	-44,4750	-125.7058	0.0021	2.45
	**************************************	27	-2.1017	-28.3024	14.7856		
		28	-2.1019	-45.5026	-132,8249	0.0024	2.42
	4	27	-1.4 99 3	-19.0475	13.4959		
	•	28	-1.4993	-31.2475	-87,0939	0.0015	2.44
	etc:	rm, my	THE STREET STREET	gram yngam 4 yng	ميدند رسمور چندر رسم . چي رسمدر		
	5	27 28	+3,1259 +3,1259	-42.0919 -67.6719	21,9893 -197,5385	0.0035	2.42
-		erork (Mer	Tree M. William organization of	The state of the s	and the second second second second second	the Marine that the teach	atom it I share
	L	28	-3.1377	-66.2332	-187.5717		
	,L	11.44 29	-3.1377	-71.5410	-244.7480	0.0003	0.42
	2	28 29	-2.1103 -2.1103	-44.4750 -48.0440	-125,7058 -164,1011	0.0002	0.42
		a. T		T40.0440	10-4" 1011	NA WARANA	Same.
	.5	28	-2.1019	-45.5026	-132.8249		
į.		29	-2.1019	-49.0716	-172.0732	0.0002	0.42
-	4	28	-1.4993	-31.2475	-87,0939		
		29	-1.4993	-33.7790	-114.0799	0.0002	0.42
	S	28	-3.1259	-67,6719	-197.5385		
	LALV	29	-3.1259	-72.9798	-255.9089	0.0004	0.42
720	1	29	32,5197	15.1197	-110,9654		
		30	32.5187	15.1197	55.3513	0.0361	3.67
	2	29	21.8382	10.1344	-74,3834		
	Alies	30	21.8382	10.1344	37.0955	0.0242	S 4 65 7
		are on t					
<u> </u>		29 30	22.3053 22.3053	10.4810 10.4810	-78.3015 39.1894	o. o254	3.47
		Augh Staff	material and the state of	a we was a file	27 s 1074	Silver Silver and State	sata SDV
-	4	29	15.3541	7.0295	-51.6214		
		30	15,3541	7.0295	25.7032	0.0168	3.67
.	5	29	33.1726	15.8849	-116.4507		
_		30	33.1726	15.8849	58.2928	0.0378	3.67

YAM : General Frame Analysis v1.59 PAGE NO. 15 TIME: Tue Mar 10 09:36:17 1792 LW. INC. JOB NO. : 15 68A MAP ROOM 6433 - SLAB REAM F ELEMENT REPORTS LOAD NODE SIGN CONVENTION : BEAM DESIGNERS AXIAL MOMENT MAX MOM/DEFL DIST CÓMB NO SHEAR MŰ -39.0224 18,2574 --67.0490 1 31 18,2574 133.7826 -0.0362 7.34 -39.0224 29 12,2447 -- 44,9744 31 -26.2058 29 -0.0243 7,34 -26.2058 12.2447 89.7177 31 -26.7663 12.7828 -46.8395 12.7828 29 -0.0254 7.33 -26.7663 93.7718 31 -18,4249 8.5288 -31.3582 29 62.4585 -0.0169 7.34 -18.4249 8.5288 -39.8072 34 19.0108 -69.6602 -0.0378 29 -39,8072 19.0108 139.4583 REACTIONS LOAD F:X NQ_ FΥ MOMENT Units: K K -Ft

A	COMB	TNAT	IONS:
7	1	1. 1 7 7 7 7	A 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

1	n n	1,40	Χ	CASE	.ì.	
		1.70	Χ	CASE	2	
		1.40	Χ	CASE	্ৰ	
2	:	1.00	X	CASE	1	
	- -	1.00	X	CASE	\mathbf{Z}	
	+	1.00	Χ	CASE	3	
3	<u>*</u>	1.00	X	CASE	1	
	-4	1.00	X	CASE	Z	
4	n	1.00	Χ	CASE	1	
		1.00	X	CASE	3	
=	-	1.40	Х	CASE	1	
	-{-	1.70	Χ	CASE	2	
	2 3 4 5	2 : + + + 3 : +	+ 1.70 + 1.40 2 : 1.00 + 1.00 + 1.00 3 : 1.00 + 1.00 4 : 1.00	+ 1.70 X + 1.40 X 2 : 1.00 X + 1.00 X + 1.00 X 3 : 1.00 X + 1.00 X 4 : 1.00 X	+ 1.70 X CASE + 1.40 X CASE 2 : 1.00 X CASE + 1.00 X CASE 5 : 1.40 X CASE	+ 1.70 X CASE 2 + 1.40 X CASE 3 2 : 1.00 X CASE 1 + 1.00 X CASE 2 + 1.00 X CASE 3 3 : 1.00 X CASE 1 + 1.00 X CASE 2 4 : 1.00 X CASE 1 + 1.00 X CASE 3

1	-16.0145	33.2136	-58.9077
2	-10.7736	22.3345	-39,6357
3	-10.6810	22.3053	-37.1874
4	-7.6685	15.8504	-28,2435
5	-15.8849	33.1726	-58.2828

Dokam : General Frame Analysis vt.58 PAGE NO. 20

L<u>W</u>. INC.

TIME : Tue Mar 10 07:36:20 1991

DB GSA MAP ROOM 6433 — SLAB BEAM F IN 2

JOB-NO. : 15

	LOÁD	R E A C T	I O N S		
NO NO	COMB	FΧ	PΥ	MOMENT	
	er van hat die die des seit van derste die de	M and lette det fier fiere fier fier fier tee teet ere ette fier fier jest ein fier fier dae gre	THE SOLDER WATER HE WAS THE COLOUR MAN THE SUR COLOUR WAY	nun min sten seet seet hat tota van stet fan dit 1744 iste dez hit ste	n dan sini man dan san san dan dan dan san dan san
4 2	1	18.9705	37.8563	-69,3329	
	2	12.7541	26.8014	-46,6057	
ł	****** ******	12.7828	26.7663	-46.8395	
	<u></u>	9,0381	19.0205	-32,9896	
		19,0108	39.8072	-49.4602	
- 1					
7	1	2.1220	70.0693	7.6152	
	2 3	1.4329	47.1012	5,1363	
		1.3272	47.3305	4.8662	
	4	1,0465	33.3423	3.7217	
	5	1,9769	70.3904	7.2371	
			·		
iO	.; -f.	-4.4109	94.9818	14,4902	
	er er er Stan	-2.7710	65.1920	111925	
	3	-2.5625	65. 5094	9.4105	
	4	-2.2461	46.1485	8.4569	
	<u></u>	-3.8109	97.4261	13.99 5 4	
	,	the same that the same to			
16	1	-4.8830	90.2451	-18,0440	
		-3,4879	61,7008	-12.9029	
•	3	0.0000	44.5358	0.0000	
	4 5	-3.4879	48.7544	-12,9029	
	3	0.000	66. 2340	O.0000	
17	1	9.0207	124.9344	maka sani anah mah but sa	
	# 22	6.4434	85.3991	-32.7704 -23.4674	
	3	-0.0000	61.6412	0.0000	
	4	6. 44 34	67.4301	-23.4074	
	5	-0.0000	91.6734	0.0000	
_23	1	1.5536	77,2798	5.5797	
	1 / 2	1.1925	52.2515	4.2856	
		-1.3292	47.3305	-4.8662	
	4	1.5789	38.4927	5.7032	
	5	-1.9769	70.3904	-7.2371	
4	.1,	-3.2207	106.9617	12.0335	
	2	-2,4601	72,3205	9.1815	
	3	2,5625	65.5094	-9.4105	
-	4	-3.2051	53.2770	11.9171	
		3.8109	97.4261	-13.9954	

OSKAM : General Frame Analysis v1.58 PAGE NO. 21

5

-8.5288

-17.0108

TIME: Tue Mar 10 09:36:21 1992

31.3582

69.6602

INC. JOB NO. : 15 GSA MAP ROOM 6433 - SLAB BEAM F

	ng mg	The state of the s		
io E	LOAD	R E A C T	I O N S	
NÖ	COMB	PX	FY	MOMENT
	2:2 102 001 112 112 113 EM 112421 213 213 ,		72 VIN 1741 THE COLD COLD LICE (SEE LICE COLD LICE TO) (COLD LICE VIN	
50	1	15.1197	32.5187	
	2	10.1344	21.8382	37.0955
	J	10.6810	22.3053	39.1894
	4	7.0295	15.3541	25.7032
	5	15.8849	33.1726	58.2828
31	1.	-18.2574	39,0224	57.0490
	2	-12,2447	26.2058	44.9744
	3	-12.7828	26.7663	46.8395

18,4249

39.8072

PLW

chitects & Engineers, Inc.

2400 Louisiana Blvd. NE AEC #5 Suite 400

63 East Main Street Mesa, AZ 85201

Project		
•		

11

Q DROPPED PANEL:

$$M_{\rm u} = -536^{1-k}$$

$$14 - *5 \Rightarrow A_5 = 4.34_{1N^2}$$

b = 100"

$$a = \frac{13,02(40)}{.85(3)(100)} = 2.04$$

$$\phi M_n = \frac{1}{12} (.9) \left[13.02(40)(10.3) - \left(\frac{2.04}{2} \right) \right]$$

$$\phi M_n = 362,867$$

opies to:

Page of

PLW

chitects & Engineers, Inc.

2400 Louisiana Blvd. NE AEC #5 Suite 400

Project_

Subject.

Project No. _____ Date ____ By ____

☐ Memorandum

☐ Telephone record

□ Note to the file

☐ Minutes of meeting

☐ To be typed

CHECK 8" SECTION.

$$M_{\rm H} = -145^{1-k}$$

Top BARS:
$$28 \pm 5 \Rightarrow A_5 = 8.68 \text{ in}^2$$

 $14 \pm 5 \Rightarrow A_5 = 4.34 \text{ in}^2$
 13.02 in^2

$$d = 6.31$$

$$q = \frac{13.02(40)}{.85(3)(300)} = 0.681$$

$$\phi M_n = \frac{1}{12} (.9) [13.02 (40) (6.31 - (.681))]$$

$$\phi M_n = 233^{1-k} > 145^{1-k}$$

POS. MOMENT:

$$M_{4} = 212.6^{1-k}$$

rchitects & Engineers, Inc.

2400 Louisiana Blvd. NE AEC #5 Suite 400 Inquerque, NM 87110 (881-2759 63 East Main Street Suits 602 Mcsa, AZ 85201 (602) 827-2759 Project GSA MAP Room

Subject FLOOR LOAD ANALY515

Project No. 91062.004 Date 2/21/92 By JMW 0

☐ Memorandum
☐ Telephone record
☐ Note to the file
☐ Minutes of meeting
☐ To be typed

ROOM 5031

opies to:

Page of

H

chitects & Engineers, Inc.

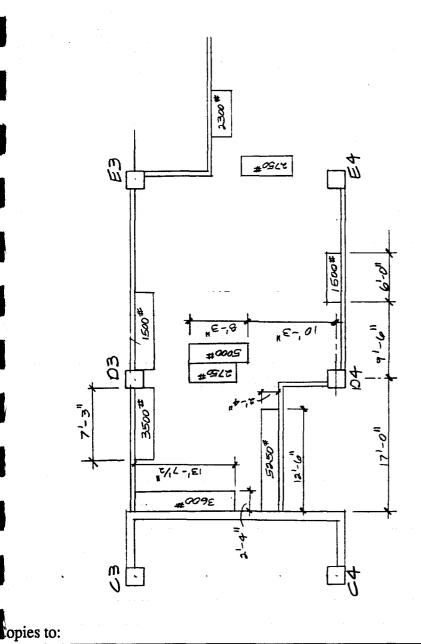
2400 Louisiana Blvd. NE 472 #5 Suite 400 Liquerque, NM 87110 881-2759 63 East Main Street Suite 602 Mosa, AZ 85201 (602) 827-2759

Project No._

	L
Project	ָ
	[
Subject	

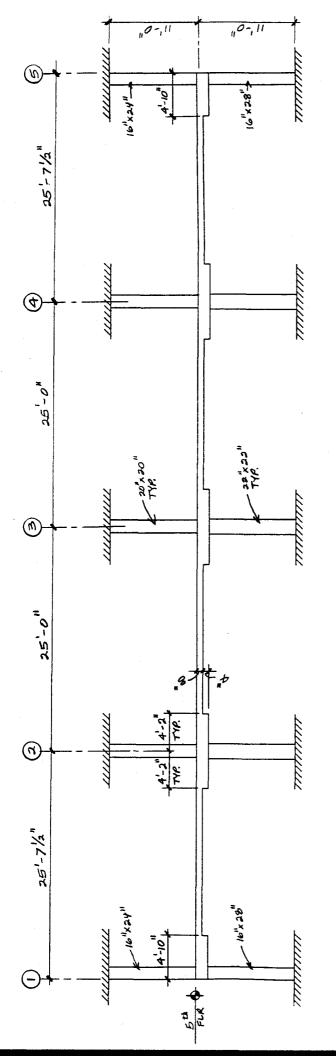
 Ву
 - ,

☐ Memorandum
☐ Telephone record
☐ Note to the file
☐ Minutes of meeting
 □To be typed

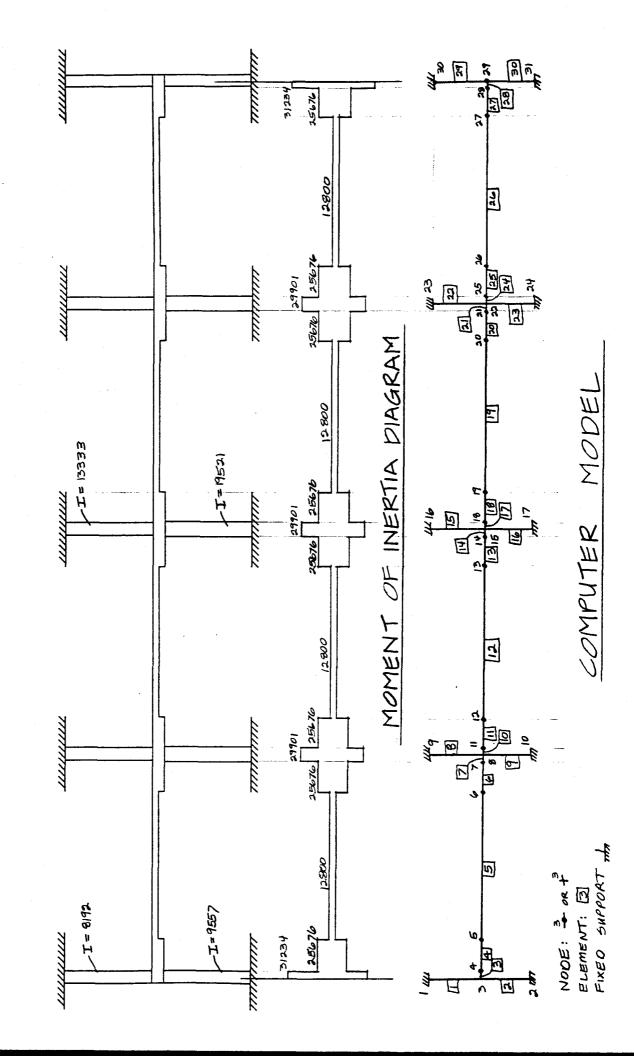


ROOM 503

Page of

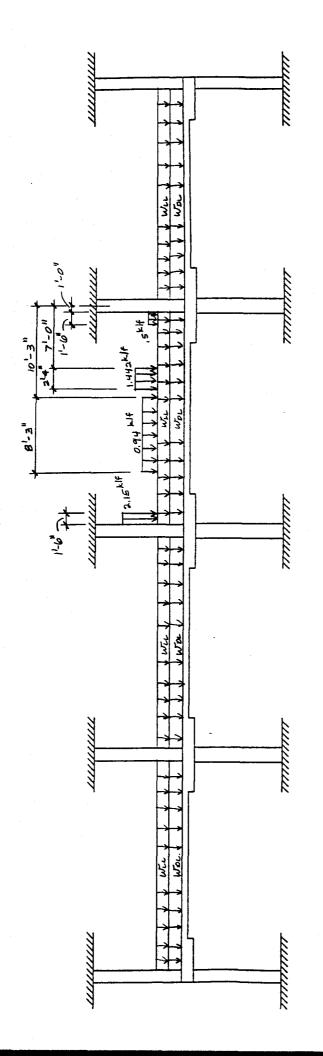


TYPICAL SLAB-BEAM CONFIGURATION



Ecs = 3.122×10 psi

 $L_{1} = 25$



The same was also the same was PAGE NO. 1

OGRAM : General Frame Analysis vi.58

TIME: Tue Mar 10 10:01:42 1592

GSA MAP ROOM 5031 - SLAB BEAM D

JOB NO. : 16

B

LW. INC.

2 221 31.7 31.1 7 .11 7 .12 7.12 11.11 11.11 11.11 1		nobal	in F (oreinenenen Drmati	o N	na ina ma ay na na na an an an an an an an an an
E	NODAL CO	JRDINATES		SUFFC	RT COMDITION	gene Gene Jane
NO	X	יץ' מינה היא אנון עור אוני נוס יניה מו אוני וויד מ	CODE	PX STIFF	PY STIFF	M STIFF
Units		Ft	and make their trees with board agent about to	K /In	K /In	K -In /Dea
1	0,000	22.000	F			
2 3	0,000	0.000	7-			
3	0,000	11.000				
4	0.830	11.000				
5	4.830	11.000				
6	20.830	11,000		•		
7	24.170	11.000				
<u> </u>	25.000	11.000				
9	25.000	22.000	F			
4 0	25.000	0.000	F.			
_1.1	25.830	11,000				
.2	29.170	11.000		4.4		
3	45.840	11.000				
14	49.170	11.000				
5	50.000	11.000				
1.6	50.000	22.000	F			
77	50,000	0.00	şΞ			
_18	50.830	11.000				
1 💬	54.160	11.000				
20	70.830	11.000				
21	74.170	11,000				
22	75,000	11.000				
23	75.000	22.000				
24	75.000	0,000	F			
-25	75.830	11.000				
26	79.170	11,000				
26 27 28	95.170	11.000				
_ 28	99.170	11.000				
29 50	100.000	11.000				
	100,000	22.000	F			
31	100.000	0.000	F			

=======================================	-							
N	NE NODE	ELEME PE NODE	N T I I ELEM LENGTH	N F O R M A BETA ANGLE	T I O PROP TYPE	N ELEM TYPE	NE HINGE	PE HINGE
		Units	: Ft	Deq	75, 100 100 07 AM 40 T	of Period and County Print, which added		
i	3	i	11.000	90.00	6	BEAM		
2.	2	3	11.000	90.00	8	BEAM		
■ 3	3	4	0.830	0.00	4	BEAM		
4	4	5	4.000	0.00	2	BEAM		
5	5	6	16.000	0.00	1	BEAM		
6	6	7	3.340	0.00	2	BEAM		
フ	7	8	0.830	0.00	3	BEAM		

OGAAM : General Frame Analysis v1.58

FAGE NO. 3

LW_ INC.

TIME: Tow Mar 10 10:01:51 1972

B GSA MAP ROOM 5031 - ELAB BEAM D

JUB NO. : 16

			en an er en an an er er er en en en				har yell gent gold did and the t	ni
	NE NODE	E L E M E PE NODE	N T I N ELEM LENGTH	F O R M : BETA ANGLE	PROP TYPE	N ELEM TYPE	NE HINGE	PE HINGE
5				. ,				ore uptime appear primer trapp marks could dead teach the appear appear adapts county trapped article region teach
8	8	9	11.000	90,00	5	BEAM		
9	10	8	11.000	90.00	7	BEAM		
10	. 3	1.1	0.830	0.00	3	BEAM		
1	11	12	3.340	0.00		BEAM		
12	1.2	13	16.670	0.00	1	BEAM		
1.3	13	14	3,330	0.00	erry Am	BEAM		
14	14	15	0,830	0.00	رائد بالد	BEAM		
### ####	1 7	16	11.000	90,00	ij	BEAM		
16	17	15	11.000	90,00	7	BEAM		
17	15	18	0.830	0.00	3	BEAM		
ន	18	19	3.330	0.00	Ī	BEAM		
9	19	20	16.670	0.00	1	BEAM		
20	Žó	21	3,340	0.00		BEAM		
h i	21	eren eren eren eren	0.830	0,00	3	BEAM		
2	ediare ada georgi para ediare alam	colore street	11,000	90.00	227) 227	BEAM		
23	24		11.000	90.00	7	BEAM		
 [4	din 1997 1995, gang Amerika	au au Th' air	0.830	0.00	3	BEAM		
	46.46 73.45 20.45		J.340					
es		26 57		0.00		BEAM		
26		27 m.m.	16.000	0.00	.3. .3.	BEAM		
EZ -	27 27	28	4.000	0.00	2	BEAM		
28	28	29	0.830	0.00	4	BEAM		
29	27	30	11.000	90.00	6	BEAM		
30 	31	29	11,000	90.00	용	BEAM		
9 204 225			RTY I	n e n e i	emmesses 4 A T I		nu iud 142 ME 210 211 511 2	# BBC #24 COT #22 #11 782 FBC #25
pp.	SEC	TION	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	24 2 500 85 8	2 7-1 1 .L	6.0 14		
	NAI	4)E	MDDUL!	18	AREA			DIST
1		Unit	s: K/In		In2	Ţ	n 4	Ft
1	SLAB BEAM (DNL.Y	3.1e-	-003 2,	4e+003	1.28e	+004	
2	SLAB BEAM		3.1e-		3e+003	2.57e		
3	S.B. @ INT	. COLUMNS	3.le-		3e+003	2.99e		
4	S.B. @ EXT.		3.1e-		3e+003	3.12e		
5	5TH FLOOR		3.5e-		400	1.338		
6	STH FLOOR				384	8.19e		
7	4TH FLOOR		J.Se		484	1.75e		
ê	4TH FLOOR		3.5e		448	7.54e		
= == == :		enenneen Ement	LOAD				in we come no me an e	
1	LOAD LOAD		DIST	in the Li	K E A	i i Li M		
	CASE TYPE	EUFW SYS	DID! SPEC	DIST		FX	FY	\$5.7 m

Donam : General Frame Analysis v1.58

PAGE NO. 1.

TIME : Tue Mar 10 10:01:56 1990

JOB NO. : 15.

LW. INC. B**G** GSA MAP ROOM 5031 - SLAB BEAM D N**G** 2

14 144		14790 1171 1 199-1 18800 1815 1474 18	TAN ANNA TIMBA BANGK MARKE MARKE TENIK TERMI	seems some acres to be a series and a seems and a seems a		The state of the	or ever with more was only often had been been and what		
	1 37575 75	E L E	MENT LOAD	LO	A D	INFOR	MATIO	N	
E U NO	LOAD CASE	LUAD TYPE	LUAU SYS	SPEC		DIST	PX	we can say was the fact of λ	
	ption	s OL							
			10-14.17	-21.24-	28				
1	1	UNIF	GLO	FRAC	E	0.00	0.00	-3.05	0.00
					E	1.00	0,00	-3,05	0,00
	otion								
			10-14.17						and the second
2	2	UNIF	GLO	FRAC	B	0.00	0.00	-1.25	0.00
					E.	1,00	0.00	-1.25	0.00
sa-i	otion	FILE	CABS						
	nent List								
3		UNIF	GLO	FRAC	B	0.00	0,00	-2.15	
					12	0.45	0.00	-2.15	0,00
		FILE	CABS						
	t List								
- 4	3	UNIF	SLO	FRAC	E	0.15	0.00	-0,94	0.00
					Ξ	0.66	0.00	<i>-</i> ○. 94	<i>o.</i> 00
	otion	: FILE	CABS						
	t List								
5	3	UNIF	GLD	FRAC	8	0.72	0.00	-1.44	0.00
					Ε	0.86	0.00	-1,44	0,00
		# FILE	CABS						
	t List								
	3	UNIF	GLO	FRAC	B	0.55	0.00	-0.50	0.00
					E	1.00	0,00	-0.50	0.00

ObRAM : General Frame Analysis v1.58 PAGE NO. 4 LW. INC.

TIME : Tue Mar 10 10:02:19 1991

J]_		i man	N O	D A L	D I 8 P L	. A C E I	MENT	S	
10			LOAD		DX		ĐΥ		FOTATION	
		,m. w.e. 5m.		Units			T pri	nun eren etas ante atun ginerria -	Dec	a ready family active .
D	COI	4BI	NATIONS	3:						
	1	3	1.40)	(CASE						
		1-	1.70							
			1.40	(CASE	3					
В	2	# #	1.00	CASE	.					
_	,	<u>i</u>	1.00 >		7.				•	
		j	1.00	K CASE	3					
B	3	() N	1.00)	K CASE	1					
		oļ.	1.00		77					
B	4.	3 11	1.00	r minde	'i '					
1173 1173	1	- i -	1.00)							
Ħ	S	-j	1.40) 1.70)		1 2					
		-\$	3 x / S/, /	v chae	al.					
	l'									
_	1.		1 2		0.0000		0.0000		0,0000 0.0000	
					0.0000		0,0000		0,0000	
			4		0.0000		0,0000		0.0000	
_			Ð		0.0000		0.0000		0.0000	
	2		1		0,000		0.0000		0.0000	
			2		0.0000		0.0000		0.0000	
			3		0.000		0.0000		0.000	
			4		0.000		0.0000		0.000	
			5		0.000		0.0000		0.0000	
					10 01, W. 10 and					
	3		1 2		0.0002 0.0001		0.0033		-0.0981	
			.£ 3		0.0001		0.0022 0.0022		-0.0660 -0.0659	
			4		0.0001		0.0012 0.0016		-0.0458	
	ŀ		É		0.0002		0.0033		-0.0980	
	1									
	4.		1		0.0002		0.0219		-0.1149	
			2		0.0001		0.0147		-0.0773	
			_ 3		0.0001		0.0147		-0.0771	

-0.0105

-0.0219

-0.0548

-0.1147

0.0001

0,0002

4

:5

Obram : General Frame Analysis v1.58

FASE MO. 5 TIME : Tue Mar 10 10:02:20 1992

88 GSA MAP^{*}ROOM 5031 - SLAB BEAM D IN **3** 2

JOB NO. : 16

LW. INC.

	LOAD	NODAL DISPLACEMENTS						
MO MO	COMB	ĎΧ	DY	ROTATION				
= 5	1	0,0001	-0.1400	-0.1518				
	<u> </u>	0.0001	-0.0941	-0.1021				
	3	0.0001	-0.0940	-0.1019				
	4	0.0001	-0.0668	-0.0724				
	2007 2007	0.0001	-0.1378	-0.1515				
= 6	·	0.0001	-0.0710	0.1186				
		0.0001	-0.0477	0.0798				
		0.0001	-0.0474	0.0794				
	4	0.000	-0.0340	0.0547				
	5	0,0001	-0,0704	0.1181				
			*					
7	4.2	0.0001	-0.0114	0.0383				
		0.0000	-0.0076	0.0258				
	3	0.0000	-0.0076	0,0253				
	4	0.0000	-0,0054	0.0185				
<u></u>	<u> </u>	o.oooi	-0.0113	0.0376				
. .	4	0.0001	-0.0071	0.0097				
_	2	0.0000	-0.0048	0.0065				
		0.0000	-0.0048	0.0060				
	4	0.0000	-0,0034	0.0048				
_	5	0.0001	-0.0071	0.0089				
			Section Control of the	that the that that it				
9	1	0.0000	0.0000	0.000				
		0.0000	0.0000	0.0000				
	3	0.0000	0.0000	0.0000				
	4	0.0000	0,0000	0.0000				
<u> </u>	5	0.0000	0.0000	0.0000				
			ter de territorialité	THE BUILDING THE THE				
<u> </u>	i	O.0000	0.0000					
	2	0.0000	0.0000	0.0000 A AAAA				
	3	0.0000	0.0000	0.0000 0.0000				
	4	0.0000	0.0000	0.0000				
		0.0000	0.0000	0.0000				
			or and the forefolds	ter e terberberter				
	<u> </u>	0.0001	-0.0077					
. .	.i.	0.0000	-0.0077	-0.0157 -0.0105				
	3	0.0000		-0.0105				
	4	0.0000	-0.0053 -0.0034	-0.0113				
	5	0.0000	-0,0036 -0.0079	-0.0072				
	5 ³	Section Section (Inc.)	C1	-0.0168				

CORAM : General Frame Analysis v1.58

LW. INC.

TIME : Tue Mar !0 10:02:20 1991

GSA MAP ROOM 5031 - SLAB BEAM D IN 2

JOI	l NO.		-1	
Marie 1	J MU	- 1	ž.,	., "

E	LOAD	N O D A L D I				
10	COME	DΧ	DΥ	ROTATION	plane and make the companies to the make the	
	(12. 3.3 20. 10. 10. 12. 42. 10. 10. 10. 10. 10. 1				i iliya and isan ilan was and ilan and ilan ilan	
- 12	į	0.0001	-0.0470	-0.0845		
		0.0000	-0.0316	-0.0567		
	3	0.000	-0.0326	-0.0584		
	L},	0.0000	-0.0221	-0.0398		
	\$200 200 200 200 200 200 200 200 200 200	0.0001	-0,0485	-0.0848		
13	1	0.0000	-0.0476	0,0846		
	de 2009 Alba	0.0000	-0.0317	0.0547		
	3	0.0000	-0.0357	0.0605		
	4	0.0000	-0.0214	0.0391		
	5	0,0000	-0.0531	0.0900		
	u.f		TO SEA IN SEA SEA SEA	0.0700		
			•			
1 4	1	0.000	-0.0081	0.0164		
•	22	0.000	-0.0054	0.0107		
	3	0.000	-0,0060	0.0165		
_	4	0.0000	-0.0036	0.0059		
_		0.000	-0,0090	0.0245		
15	1.	0.000	-0,0073	-0.0087		
	2	0.,000	-0.0050	-0.0062		
	3	-0.0000	-0.0046	0.0000		
_	4	0.0000	-0.0034	~0.0062		
_	Ē	-0.0000	-0.0048	0.0000		
•			7. 10 10 10 100	THE ME THE SECTION		
16	4	0.0000	arte e arte arte arte	A A&AA		
10	1	0.0000	0.0000	0.0000		
	2		0,0000	0.0000		
	3	0.0000	0.0000	0,0000		
	4	0.0000	0.0000	0.0000		
	<u></u>	0.000	0.0000	0.0000		
-						
-1 7	1	0.000	0.0000	0.000		
	,	0.0000	0.0000	0.000		
	T.	0,000	0.0000	0.0000		
	4	0.0000	0.0000	0.000		
	 	0.0000	0.0000	0.0000		
8 1	1	-0,0000	-0.0114	-0,0348		
	2.	~o.ooo	-0.0077	-0.0252		
_	3	-0.0000		-0.0155		
	4	0.0000	-0,0060	-0.0205		
		-0.0000	-0.0090	-0.0245		

OCKAM : General Frame Analysis v1.55

LW_ INC. B BSA MAP ROOM 5031 - SLAB BEAM D N 2 TIME : Top Mar 10 10:02:21 1992

JOB NO. : 16

NODAL DISPLACEMENTS

NO	LOAD COMB 1 2 3 4 5	DX -0.0000 -0.0000 -0.0000 -0.0000 -0.0000	DY -0.0679 -0.0463 -0.0357 -0.0359 -0.0531	ROTATION -0.1118 -0.0761 -0.0605 -0.0535 -0.0900	ngg ann ma star len lan ann ann ann an san tan
	2 3 4 5	-0,0000 -0,0000 -0,0000 -0,0000	-0.0463 -0.0357 -0.0359	-0.0761 -0.0605 -0.0535	
	2 3 4 5	-0,0000 -0,0000 -0,0000 -0,0000	-0.0463 -0.0357 -0.0359	-0.0761 -0.0605 -0.0535	
30 1	3 4 5 1 2	-0.0000 -0.0000 -0.0000	-0.0357 -0.0359	-0.0605 -0.0585	
20	4 5 1 2	-0,0000 -0,0000	-0.0359	-0.0535	
20	5 1 2	-0,0000			
20	1 2		-0,0531	-0.0 7 00	
20 6	2	- <u>0</u> 0001			
20 A	2	~#) #D#H1			
			-0.0632	0.1057	
		-0,0001	-0.0431	0.0742	
	\$	~0.000	-0.0326	0.0584	
-	4	-0.000	-0.0337	0.0572	
=	<u> </u>	-0,0001	-0.0485	0.0848	
			•		
21	1.	-0.001	-0.0101	0.0289	
	2	-0.0001	-0.0049	0.0199	
	I	-0,0000	-0.0053	0.0113	
-	4	-0.0001	-0,0054	0.0166	
1	ST. No.	-0.0001	-0.0079	0.0168	
and the	1	-0.0001	-0.0076	-0,0003	
	2	-0.0001	-0.0051	0.0002	
	3	-0,000	-0,0048	-0.0060	
	4	-0.0001	-0.0037	0.0019	
	5	-0.0001	-0,0071	-0.0089	
_23	1	0.000	0,000	0.000	
	2	0.0000	0,0000	0.0000	
	3	0.000	0,000	0.000	
	.Q.	0,0000	0.000	0.000	
	No.	0.000	0.0000	0.0000	
4	.1	0.000	0,000	0,0000	
	2	0.000	0,0000	0.000	
	3	0,0000	0.000	0.000	
<u></u>	4	0.000	0.000	0.0000	
	<u></u>	0.000	0.0000	0.000	
		المراجع المراج			
4 5	1	-0,0001	-0.0102	-0.0297	
	2	-0.0001	-0.0068	-0.0196	
-	3	-0.000	-0.0076	-0.0253	
_	4].	-0.0001	-0.0047	-0.0123	
	5	-0.000i	-0.0113	-0.037 <u></u>	

AAM : General Frame Analysis v1.58

FAGE NO. 5

CW, INC.

B'/ GSA MAP ROOM 5031 - BLAB BEAM D

TIME : Tue Har 10 10:02:22 1999

JOP NO. : is

IN 🖢 2

NODAL DIBPLACEMENTS

DX.	DY	ROTATION
	au cura grun (ann arth dhan (arb nìmh curb dhan bha dha haon nibh aibh aibh bha bha bh	יים הוא היים אות שנה נושי את וכיו ובם חום שנה שנה שבי שבי את היים וכיו ויונו את חומי שם וכיו שבי שנה וכיו ביי
-0.0001	-0.0648	-0.1127
-0.0001	-0.0433	-0.0756
-0.0001	-0.0474	-0.0794
-0,0001	-0.0296	-0.0525
-0.0001	-0.0704	-0.1181
Sale of the Sale o	No. 4 No. 2 No. 79	NA is the first the
-0.0002	-0.1375	.0.1486
	-0,0923	0.0978
-0,0001	-0,0940	0.1019
-0,0001	-0.0a50	0.0702
-0.0001	-0.1378	. 15 15
-0.002	-0.6216	0.1129
-0.000i	-0.0145	0.0759
-0.0001	-0.0147	0.0771
-0.0001	-0.0102	0.0535
-0,0002	-0.0219	0.1147
-0.0002	-0.0033	0.0965
-0.0001	-0.0022	0.0648
-0,0001	-0,0022	0.0659
-0.0001	-0,0016	0.0457
-0.0002	-0.0033	0.0980
رهن رسي رهن در		
0.000	0,0000	0.0000
0.0000	0.0000	0.0000
0.0000	0.0000	0.0000
0.0000	0,0000	0.000
0.0000	0,0000	0.0000
A AAAA	0.0000	
0.0000 0.0000	0.0000	0.0000
0.0000	0.0000	0.0000
		0.0000
		0.0000
CICCU	V. UUWU	0.0000
	th before beading windle about to had black under beady beady object pages with the course of the games have	
	0,0000	0.0000 0.0000

LOAD	NODE NO	E L E M AXIAL	ENT REPO SIGN CONVENTION SHEAR	4 1 7 Sec.	the second proc. And that a history of pages	DIST
	Units	• K		K -Ft		Ft

OGRAH : General Frame Analysis v1.58

INC.

FAGE NO. 7 TIME : Tue War 10 10:02:25 1992

GSA MAP ROOM 5031 - SLAB BEAN D

JDB NO. : 15

IV ==	32								
I No		LOAD COMB	NOI NOI		E L E M	ENTREPC SIGN CONVENTION SHEAR		SIGNERS MAX MON/DEFL	pist
A	COM	BINATIC	iww. NS:		Au (10 M) 36, 40 M) 401 407 166	AND DAY SED ONE THE HER BOD FOR AND SED BOD THE COURT OF THE COURT OF		<u>and and and and and bou and the San San And and and the Contact</u>	
ME	1	+ 1.70	Х	CASE CASE CASE	1 2 3				
	2	+ 1.00) X	CASE CASE CASE	1 2 3				
ri	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			CASE CASE	2				
	4			CASE CASE	1				
	5			CASE CASE	2				
		· jennej	7		33.973 6 33.9736	-16.8941 -16.8941	123.8454 -61.9898	-0.0335	3.67
		.			22.8448 22.8448	-11.3606 -11.3606	83.2811 -41.6856	-0.0225	3.67
		3	3 1		22.8290 22.8290	-11.3435 -11.3435	83.1552 -41.6229	-0.0225	3.67
		4] 1		16.2085 16.2085	-8.0631 -8.0631	59.1081 -29.5859	-0.0160	5.67
		5	3 1		33.9515 33.9515	-16.8701 -16.8701	123 .6691 -61 .9 020	-0.0335	3.67
		i temi	3		-39.6359 -39.6359	-19.6522 -19.6522	72.0059 -144.1682	0.0335	7.33
			2 3		-26.6523 -26.6523	-13.2153 -13.2153	48.4211 -96.7475	0,0225	7.33
		3	2 3		-26.6339 -26.6338	-13.1951 -13.1951	48.3467 -96.7993	0.0225	7.33
F		4	2		-18.9099 -18.9099	-9.37 95 -9.37 95	34.3669 -68.8081	0.0160	7,33
_			2		-39.6100	-19.6239	71.9017		

3 -39.6100 -19.6239 -143.9608 0.0334 7.33

Object Seneral Frame Analysis vi.38 PAGE NO. 10

LW. INC.

TIME: Tue Mar 10 10:02:30 1998

GSA MAP ROOM 5031 - GLAB BEAM D N 2

JOB NO. : 76

	4 (7) A T	5. 1 pers. pers.		ENT REP			and the second control of the contro
NO.	LOAD COMB	NODE NO	AXIAL	SIGN CONVENTI SHEAR		MAX MOM/DEFL	DIST
			**************************************		701 AU 521 AU 197 761 MA 190 574 AU 69 10 52	्या क्रिक प्रक्रा क्रिक हम्मू हिंदि है है है जिस क्रिक्ट क्रिक्ट क्रिक्ट क्रिक्ट क्रिक्ट क्रिक्ट क्रिक्ट क्रि	# 100 from 1121 Will Said All All All
₹	. 1	S	-2.7581	73.40 95	-248.0136		
		4	-2.7581	68.3017	-209.1205	0.0004	0.4
	274, 32 <u>1</u>	3	-1,8547	49.4971	-180,2285		
		d,	-1,8547	45,9281	-140.5271	0.0002	0.41
	3	3	-1.8516	49.4628	-179,9544		
		4,	-1.8516	45.8938	-140.3815	0.0002	0.41
	4.	. 3	-1,3165	35.1184	-127.9162		
ė.		4	-1,3165	32.5949	-99,8185	0.0002	100 a 25 3
	=======================================	<u></u>	-2.7539	73.5615	-267,6299		
		4	-2.7559	66.2537	-208.7746	0.0004	0,41
	į	4	-2.7581	68.3017	-209,1205		
	,št.	5	-2,7581	42.7217	12.9262	0.0039	1.62
	2	4	-1.8547	45.9281	-140.6271		
		77	-1.8547	28.7281	8.6852	0.0026	1.62
		4.	-1.8516	45.8938	-140.3815		
, No.			-1.8516	28.6938	8.7936	0.0026	1.61
	4	44.	-1.3165	32.5869	-99,8185		
		<u></u>	-1.3165	20.3869	6.1289	0.0019	1.42
		4	-2.7538	48.2537	-208.7766		
			-2.7539	42.6737	13.0780	0.0039	1.61
	1	5	-2.7581	42.7217	12.9262	155.6269	6,4 8
•		6	-2.7581	-59.5983	-122.0870	-0.1616	7.41
	2	Land	-1.8547	28.7281	8,4852	104.6506	6.48
		Ó	-1.8547	-40,0719	-82.0655	-0.1087	7,41
	3	5	-1.8516	28.4938	8.7936	104.5300	6.67
		6	-1.8516	-40.1062	-82.5059	-0.1085	7.40
	4	5	-1.3165	20.3869	6.1289	74.2640	5.68
		6	-1.3165	-28.4131	-58.0813	-0.0771	7.41
	5	5	-2.7538	42.6737	13,0780	155.4581	6.67
		6	-2.7538	-59.6463	-122.7035	-0.1613	7.40

OsVAM : General Frame Analysis v1.58 PAGE NO. 1:

LW. INC.

TIME : Tue Mar 10 10:02:39 199

BÎ 69A MAP ROOM 5031 - SLAB BEAM D

JOB NO. ; 16

N 2

	LOAD	NODE	ELEM	ENT REP SIGN CONVENTION		SIGNERS	
io Terres	COME	NO	AXIAL	SHEAR	HOMENT	MAX MOM/DEFL	DIST
₹ ©	1	6 7	-2,7581 -2,7581		-122.0870 -356.8155	0.0070	1.81
			aka ni si saabbaabab	had had in the first of had in	water enter	North Market A. North	ik et hidrik
	2	ćo	-1.8547	-40.0719	-82.0655		
		7	-1.8547	-54,4339	-239.8903	0.0047	1.91
	3	6	-1.3516	-40.1062	-82,5059		
	· · · · · · · · · · · · · · · · · · ·	7	-1.8516	-54,4692	-240,4452	0.0047	1.81
-							
	4	· 6	-1.3165	-29.4131	-59.0813	- 11. 44 court was	,
7		/	-1.3165	-38.4001	-169.9934	0.0033	1.81
		6	-2.7538	-59.6463	-122.7035		
		7	-2,7558	-81.0054	-357,5723	0.0070	1.81
Pu.							
	4	7	-2.7581	-80.9574	-39 6.815 5		
5		8	-2.7591	-84.2455	-426.2131	0,0006	0.42
ì							
	2	7 8	-1.8547	-54.4339	-239.8903		
		₩	-1.8547	-58.0029	-286.5516	0.0004	0.42
	3	7	-1.8516	-54,4682	-240.4452		
)		8	-1.8516	-58.0372	-287.1349	0.004	0.42
Ç.	4	7	-1.3165	-38,6001	4 7 mg mg mgmgmg as		
Ì		8	-1.3165	-41.1316	-169,9934 -203.0821	0.0003	0.42
B.			The same of the tar	to the He observed the best	Sinc for four B. Suff boot disc site	. We at the the things	had see This since
	5	7	-2.7538	-81.0056	-357.5923		
		8	-2.7538	-96.3135	-427.0298	0,0006	0:42
-							
ŝ	1	(;)	75,2403	2.6956	-19.7203		
		9	75.2403	2.6856	9.8209	0.0033	3.67
	2	8	50.5800	1.8151	of mate confident formation		
Ê	 .	ş	50.5800	1.8151	-13,3285 6.6379	0.0022	3.67
•				ten id intelligent offer	Same of Same Same of the	Part Mr. Part Hart School School	tood at tembri
٠.	3	8	50,7785	1.6556	-12.1590		
ì		7	50.7785	1.6556	6.0526	0.0020	3,47
	4	8	35.8188	1.3338	-9 <i>,</i> 7939		
à	•	9	35.8188	1.3338	4.8784	0.0016	3 27
_	5	8 9	75.5182	2,4622	-18,0830		
		, F	75.5182	2.4622	9.0016	0.0030	3.67

OGRAM : General Frame Analysis v1.58 PAGE NC. 13

TIME : Tue Mar 10 10:02:44 1791

LN INC. BSA MAP ROOM 5031 - SLAS BEAM D N 2

JOB NO. : 16

			ELEM	ENT REP	0 R T S		
NO NO	LOAD	NODE NO	AXIAL	SIGN CONVENTION SHEAR	MOMENT : BEAM DE	SIGNERS MOM/DEFL	DIST
	<u>i</u>	10	-91.0408	3.973 7	-14.6086		
, Ais	. L	8	-91.0408	3.7737	29.1023	-0,033	7.34
	e de la companya de l	10	-61,2018	z. asīa	-9.8729	,, , ,, ,,, ,,,, ,,,,, ,,,,, ,,,,,,,,,	27 11 10
		8	-61,2018	2.6856	19.6686	0,0022	7.34
	3	io	-51,4419	2.4526	-9.0190		
(; ·		8	-61.4419	2. 4514	17.9594	-0,0020	7.34
4	4	10	-43,3407	1.9726	-7.2511		
	·	8	-43.3407	1.9726	14.4479	-0.0014	7.34
				tan 40 t V May Ven	** ** * * * *	y that off that had been	V # 5 7
	<u></u>	10 .	-91.3770	3.6475	-13,4132		
		8	-91.377 <u>0</u>	3.6475	26.7095	-0,0030	7.34
		S	-1,4699	80.0156	-377,3904		
7		1 1	-1.4699	74.7077	-313.1803	0.0005	0.41
	<u></u>	3	-0.9843	53,7788	-253.5544		
	.47	11	-0.9843	50.2098	-210,3992	0,0004	0.41
	- 	285		ومدر مواده والمراز ال	,		
	3	8 11	-1.0546 -1.0546	54.1832 50.6142	-257.0165 -213.5256	0.0004	() <u>, 4</u> 1
		,3 ₆ - 45.	26 to 54 644 TV 544	and have as And the 11th also	i Aladadan	ALEM ALEANING	Marti
	. 4	8	-0.6777	38,0279	-178,8403		
		1 1	-0.6777	35.4964	-148,3278	0,0003	0.41
	5	8	-1,5685	80.5817	-382.2373		
		1 1	-1.5485	75.2738	-317.5573	0,0004	0,41
-	,	11	-1.4699	74,7077	-313,1803		
		12	-1.4699	53.3484	99.3264	0.0060	A a Salah
-							
	2	11	-0.9843	50,2098	-210.3992		A TOPO OF
		12	-0.9843	35.8478	-66.6830	0,0040	1.52
منه	Ţ	11	-1.0546	50.6142	-213.3256		
		12	-1.0546	36.2522	-68.4589	0.0041	1 m 22
	4.	11	-0.6777	35.4964	-148,3278		
		12	-0.6777	C5. 3094	-46.7822	0.0028	1.52
	5	11	-1.5685	75.2738	-317.5573	and the second of	g pun san
		12	-1.5685	53.9145	-101.8127	0.0061	1.52

OGNAM : General Frame Analysis v1.58

IMC. TIME: Tue Mar 10 10:02:53 1752

GSA HAP ROOM 5031 - SLAG BEAM D

JOE NO. : 14

	onth bland have a law with a cold bit.	t dage yets gran geris which they ye					
	LOAD	NODE	ELEM) R T S		
	COMB	MO	AXIAL	SHEAR	MOMENT	MAX MOM/DEFL	DIST
					T THE NEED CHILD STORM CHILD FORM JOSEP STEEL FRANCE (Book	THE SHEET STATE AND THE SHEET	
	1	12 13	-1,4699 -1,4699	53.3484 -53.2562	-99.3264	123.1956	8.34
		ali tant	Tarayy		-98.5576	-0.1274	8.34
		12	-0.9843	35.0470	-66.6830	82.7431	8.34
•		13	-0.9843	-35.8332	-66.3613	-0.0869	8,34
	3	12	-1,0546		-68.4589	84,3573	8,43
		13	-1.0546	-35.4288	-61.5966	-0.0893	8.39
	4	12	-0.6777	25.3094	-46.7822	38.2265	8.30
= '		13	-0.6777	-25.5341	-48.6553	-0.0409	8.31
			-i. 5685	677 T2'	a disk of the original programmer	A programme of programme and	
	· wit	13	-1.5685	53.9145 -52.6901	-101.8127 91.6070	123.4567 -0.1328	8.43 8.79
			The Art Section Control	and state B. Sand J. Sand M.	the state of the s	Name and the state of the state	17 0 1
er E	1	13	-1.4699	-53.2562	98.5576		
_		14	-1,4599	-74.5516	-311.3576	0.0040	1.81
	eta eta	13	-0.9843	-35.8332	-66.5613		
		14	-0.9843	-50, 1522	-209.7270	0.0040	1.81
	ende ende	13	-1.0546	-35.4288	-61.5966		
		14	-1.0546	-49.7478	-203.4157	0.038	1 , 51.
	4	13	-0.6777	-25,5341	-48.6553		
,		14	-0.6777		-150.5945	0.0029	1.81
	eug 1007	13	-1.5665	-52. 49 01	-91,6070		
	100	14	-1.5685		-302.5218	0.0057	1,92
)	1	14	-1,4699	-74,5516	-311.3576		
j		15	-1,4699	-79.8594	-375.4381	0.0005	0.42
•		14.	-0,9843	-50,1522	-209,7270		
		15	-0.9843		-252 . 8345	0.0004	0.40
		14.	R COMMING	رمسر بسر پر سمد	نومسد مرسم کردن کی جو سر مدیر		
	· · · · · · · · · · · · · · · · · · ·	15	-1.0546 -1.0546		-203,4157 -246,1876	0.0004	0.42
					erence or many or the base of based	tan di Menintah di di	tat is 117 fa
	4	14 15	-0.6777 -0.6777		-150.5945	مورد المراجعة	,
		A to?	Sala Sala A. A. A.	-38,2221	-181.2683	0.0003	0.42
	5	14	-1.5685		-302,5218		
		15	-1.5685	-79,2933	-366.1325	0.0005	0.42

OCKAM : General Frame Analysis vi.58 PAGE NO. 14

OGRAM : General Frame Analysis vi.58 LW. INC.

TIME : Tue Mar 10 10:02:57 1791

GSA MAP ROOM 5031 - SLAB BEAM D

JOB NO. : 16

- 12

ELSMENT REPORTS

. 10	COMB	NODE NO	AXIAL	SHEAR	ON : BEAM DES MOMENT	IGNERS MAX MOM/DEFL	7177
Î						A 400 - 700 - 770 - 100	
15	1.	15	77,5548	-2,4450	17,9292		
		16	77.5548	-2.4450	-8.9664	-0.0030	3.67
	2	15	52.3906	-1.7465	12.8043		
-		16	51.3906	-1.7465	-6.4045	-0.0021	3.67
	**************************************	15	46.2505	0,0000	~0.0000		
		16	48.2505	0,000	0,0000		
	4	15	38.3643	-1.7465	12.8045		
		16	38,3643	-1.7465	-6.4045	-0,0021	3,67
	1027 1027	t den	71.7586	0.0000	-0,0000		
	Test	16	71,7586	0.0000	0.0000		
خت							
ç	1	1.7	-93.8413	-3.5779	13,1173		
		15	-93.8413	-3.5779	-26.2399	0.0030	7.33
	2	17	-63.3927	-2,5557	9.3695		
		15	-63,3927	-2.5557	-18,7428		7.35
4	S	17	-58.3832	0.0000	-0,0000		
)		15	-58.2852	0.0000	0.0000		
•	<u>4</u> 4	17	-46,4208	-2,5557	9.3695		
<u>, </u>	-¥ .	15	-46.4208	Control of the second s	-18.7428	0.0021	7.33
	, -	, ****,					
	5	17 15	-86.8280 -86.8280	0.0000 0.0000	-0.0000 0.0000		
		.k. C.3	that had so had sate had had				
<u>.</u>	1	î B	-2.6028	71.5367	-419.6071		
į		18	-2.6026	86.2289	-345,8344	0.0006	0.41
9	de la	15	-1.7935	62,0621	-284.3838	W. 15 W. W	
		18	-1.7935	58.4931	-234,3534	0.0004	0.4;
-		15	-1,0546	53.3168	-246.1976		
		18	-1.0546	49.7478	-203.4157	0.0004	0.41
	4	15	-1.4869	46.5630	-212.8176		
		18	-1.4869	44.0315	-175.2209	0.0003	0.41
	5	15	-1,5685	79.2933	-366.1325		
		18	-1.5685	73,9855	-302,5218	0.0005	0.41

OGRAM : General Frame Analysis vi.38

PASE NO. 15 TIME: Tue Mar 10 10:03:01 1992

LW. INC. 68A MAP ROOM 5031 - SLAB BEAM D

NU 2

JOB NO. . 18

	LOAD	NODE	ELEMI	E W T R E P BIGN CONVENTION	ORTS		
NO	COME	MO	AXIAL	SHEAR	MOMENT		DIST
)							
173	1.	18 19	-2.6028 -2.6028	96.2 289	-345,8344	n hara	4 807.675
		Th		50.4185	-105.7978	0.0065	1.52
	<i>7</i> 3	13	-1,7955	50.4731	-234.3834		
		19	-1,7755	40.9491	-71,7329	0.0044	1 . 52
	3	18	-1.0546	49.7478	-203,4157		
		19	-1.0546	35.4288	-61.5966	0,0038	1.51
ď	.7	18	4 45075	a a lasta en	a mengangan yang penguan, pang		
	4	19	-1.4869 -1.4869	44.0315 30.6500	-175.2209 -53.8269	0.0033	
			See 15 Constitute of	Such Such St. Such Such Such Such	Tree Touch 28 Each alous boost of	Text 18 Text Sect Sect Sect	ofe 28 hear show
		18	-1.5485	73 . 7855	-302.5218		
		19	1,5485	52.6901	-91.6070	0.0057	1.51
		<u> 1</u>		60.4185	-105,7978	152.7183	8.25
	*	20	-2.6028	-62,3986	-116.6904	-0.1627	9.29
1	2	19	-1.7935	40.9491	-71.7329	103,8297	8.25
_		20	-1.7735	-42.3122	-79.0858	-0.1107	6.29
1		19	-1,0546	J5.4288	-61.5966	84.3573	8.24
		20	-1.0546	-56,2522	-68.4589	-0.0893	8.28
. (64)	4].	19	-1,4869	30.4500	-53.8249	79.3074	8.25
		20	-1.4869	-31.7737	-59.1850	-0.0847	8.30
		17	-1.5685	distriction of construction	رامان ومعام ما ال	a property of the contract	eren eren og
	فينة	20	-1.5685	52.6901 -53.9145	-91.6070 -101.8127	125.4569 -0.1328	8.24 8.28
			and the second stand stand stand	that the transfer of the transfer	all the object that the about I	ಗಿನ ಅ ಂದು ಗಾಲಿಯು ಹಿಡ	had an associated
	1	20	-2.4028	-62.3986	-116.6904		
		21	-2.6028	-84.8110	-361,5638	0.0070	1.81
	2	20 21	-1.7935 -1.7935	-42.3122 -57.4264	-79.0858 -244.9589	0.0047	1.81
		· »	and the second		~ 244 700 7	Ma MMA	A n CDA
	3	20	-1.0546	-34.2522	-68,4589		
		21	-1.0546	-50,6142	-213,5256	0.0041	1.82
_	4	20	-1.4869	-31,7737	-59,1850		
		21	-1.4869	-42.7130	-182.8875	0.0034	1.81
	5	20	-1.5685	COTTE CTS 4 AND	. grafing amount of the		
	J	21	-1.5685 -1.5685	-53.9145 -75.2738	-101.8127 -317.5573	0.0061	1,82
					construction of the second construction (second	ram will han han had also	in the Second Section .

OCKAM : General Frame Analysis v1.58

LW. INC.

TIME: Tue Mar 10 10:03:13 1992

BBA MAP ROOM 5031 - SLAB BEAM D N 2

JOB NO. : 18

	LOAD	NODE	ELEM	ENT REP SIGN CONVENTION	ORTS DN : BEAM DE	STENERS	
10 10	COMB	NO	AXIAL		MOMENT	MAX MOM/DEFL	DIST
	" family	21	-2.4028	-84.8110	-361.5638		
			-2.6028	-90.1189	-434.1597	0.0006	0.42
		21	-1.7935	-57.4264	-244,9589		
_		22	-1.7735	-60.9954	-274.1039	0.0004	0.42
	TOP 1	21	-1.0546	-50.6142	-213.5256		
		22	-1.0546	-54,1832	-257.0165	0.0004	() , 4\Z
•	4	- 21	-1.4869	-42.7130	-182.8875		
		and the	-1.4869	-45.2445	-219.3098	0.0003	0.42
		21	-1,5685	-75.2738	-317.5573		•
		army stray And Alla	-1:5885	-80.5917	-392,2373	0,0006	0.42
	e e e e e e e e e e e e e e e e e e e	75 75 - 21 41	80.0652	-0.0610	0.4904		
		23	80.0552	-0.0610	-0.1807		
1	eriy .	27 27 22 22	54,0263	0.0596	-0.4071		
		23	54.0263	0.0596	0.2480		
1	3	22	50.7785	-1.4556	12,1590		
		23	50,7785	-1.6556	-6.0526	-0.0020	3.67
	4	22	39.2652	0.5408	-3.9417		
1		23	39.2652	0.5408	2.0074	0.0006	3.64
:	5	22	75.5182	-2.4622	18.0830		
		23	75.5182	-2,4622	-9.0016	-0.0030	3.67
	1	24	-96.8789	-0.1580	0.6424		
		22	-96.8789	-0.1580	-1.0958	0.0001	7.55
	2	24	-65.3719	0.0377	-0.1030		
1		22	-65.3719	0.0379	0.3360		
	3	24	-61.4419	-2.4526	9.0190		
		22	-61.4419	-2.4526	-17,9594	0.0020	7.34
-	۵÷	24	-47,5108	0,7529	-2.7248		
		22	-47.5108	0.7529	5.5549	-0.0006	7.51
	grants strong Sarrat	24	-91.3770	-3.6475	13.4132		
		22	-91.3770	-3.6475	-26.7095	0,0030	7.34

:CokAM : General Frame Analysis vt.58

PAGE NO. LE

LW. INC.

TIME : Tue Mar 10 10:03:19 1992

BB GSA MAP ROOM 5031 - SLAB BEAM D

JOB NO. : 15

M 2

	Manual pages galant march leafer bears a seem		ELEM		ORT 5	An and the state of the state o	
NO NO	LOAD COMB	NODE NO	AXIAL	SIGN CONVENTI(SHEAR		IGNERS MAX MOM/DEFL	DIST
				CONTRACTOR	MP - Man (1974 - 1974) maga pama majar (man maga) (may maga) syar syar mayo	and any proper and a second control and a second co	
z:4	1	22	-2.6998	86.8253	-435.7460		
		25	-2.6998	81.5174	-365,8837	0.0006	0.41
	erry En	on on all all	-1.8131	58.4028	-293.3608		
		25	-1.8131	54.8338	-246.3676	0.0004	0.41
		To Su	-1.8516	58.0572	-287.1349		
		25	-1.8516	54.4682	-240.4452	0.0004	0.41
	4	- 22	-1,2748	41.5315	-209.8913		
	•	25	-1.2748	39.0000	-176,4708	0.0003	() # 4 1
1	(0)	22	-2,7538	86.3135	-427.0298		
		also sud	-2,7538	81.0056	+357,5723	0.0006	0.41
	di di	en en Li	-2.6973	81.5174	-345.8837		
		26	-2.6998	60.1581	-129,2855	0.0073	S. A. S. C.
	2	20	-1.8131	54.8338	-246.3676		
		26	-1.8131	40.4718	-87.2073	0.0049	
1	3	25	-1.8516	54.4682	-240.4452		
		Zb	-1.8516	40.1062	-82,5059	0.0047	1.53
	4	25	-1.2748	39,0000	-176.4708		
		26	-1.2748	28.8130	-63.2230	0.0035	1 . 54
_	5	25	-2,7538	81.0056	-357,5923		
		26	-2.7538	59.6463	-122.7035	0.0070	
	1	26	-2.6998	60.1 581	-129.2855	153.6701	9.41
	* .	27	-2.4978	-42,1619	14.6847	-0.1580	8.64
-	2	26	-1.8131	40.4718	-87.2073	103.2538	9.41
		2.7	-1.8131	-28.3282	9.9413	-0.1061	8,64
	Concept Concept Concept	26	-1.8514	40.1062	-82.5059	104.5300	9.33
		27	-1.8516	-28.6938	8.7936	-0.1085	8.60
	Ã.	26	-1.2748	28.8130	-63,2230	72.8736	9.45
		27	-1.2748	-19,9870	7.3850	-0.0746	8.66
-	:: ::	26	-2.7538	59.6463	-122.7035	155.4581	9.33
		2.7	-2.7538	-42,6737	13.0780	-0.1513	8.60

OGRAM : General Frame Analysis v1.58

PAGE NO. 18 TIME : Tue Mar 10 10:03:17 1991

INC.

68A MAP ROOM 5031 - SLAS BEAM D

JOB NO. : 16

1/4	ū .	est.											
	20 mm	:::: ::::	2.: 211. 120 212 111	 200 hai na am a	** *** *** **** ****	201 AM 312 AM 42	 	 	 	<u>201</u>	#11 #27 #21 1.70	 = 142 am w= 141	

	LOAD	MODE	ELEM	ENT REP BIGN CONVENTI	ORTS	i de matematic	£0-€0	
NO	COMB	NO NO	AXIAL	SHEAR	MOMENT	rIΑX	MOMIDEFL	
2.7	1.	27	-2.6998	-42.1619	14.6847		رمندو مهجد رمان رمان	,,
		29	-2.6998	-67,7419	-205.1227		0.0038	2.37
	73	27	-1,8151	-25,3282	9.9413			
•		28	-1.8131	-45.5282	-137,7715		0.0026	2.57
		27	-1.8516	-28.6938	8.7936			
	"na"	28	-1.8516	-45.8938	-140.3815		0.0026	2.37
	·	, , , , , , , , , , , , , , , , , , ,	a zer enz zi ens	4 (%) (%) (%) (%)	1997 - 1997 2004, <u>200</u> 0 2004,			
	.4.	27 28	-1.2748 -1.2748	-19.9870 -32.1870	7,3950 -96.9629		0.0018	2,40
. mete		otiv Cui	alle Mit eller V - S femile	Specialists March Special of Section	it had be I had there it		The St. That The Like County	400 ft / '*
1	See of	27	-2,7538	-42.6737	13.0780			
		20	-2.7538	-68.2537	-208.7766		0.0039	2,37
	i.	25		-67,7419	-205,1227		en en en en	.m. 20 270
		27	-2.6978	-73.0497	-243,5512		0.0004	0.42
	2	28	-1.8131	-45.5282	-137,7715			
		29	-1.8131	-49.0972	-177.0411		0.0002	0.42
1	3	28	-1,8516	-45.8938	-140,3815			
	, .	29	-1.8516	-49,4628	-179.9544		0.0002	0.42
nia.	л	, many passage	1 (DT/87)		-96.9629			
	4	28 29	-1.2748 -1.2748	-32,1870 -3 4, 7185	-70.7627 -124.7287		0.0002	0.42
-		Alam V	17. M. observe C. F. Stand	Syst C 30 of the Seast Space	and the second s		the second second	TOP OF THE
	5	28	-2.7538	-68,2537	-208.7766			
		29	-2.7538	-73.5615	-267.6299		0.0004	0.42
	1	29	33.7153	16.6189	-121.8173			
		30	33.7153	16.6187	60. 9903		0.0330	3,67
-	2	en en Li V	22.6603	11.1640	-81.8324			
		30	22.6603	11.1540	40.9717		0.0221	3.67
	3	29	22.8290	11.3435	-85,1552			
	•	30	22.8290	11.3435	41.6229		0.0225	3.67
							. 4.2	
	4	29	16.0239	7.8645	-57.6594		، مستور من	19594
		30	16,0239	7.8665	28.8720		0.0156	
	5	29	33.9515	16.8701	-123.6691			
		30	33,9515	16.8701	61.9020		0.0335	3,67

```
TIME : Tue Mar 10 10:03:32 1778
LW, INC.
  BSA MAP ROOM 5031 - BLAB BEAM D
                                              JOB NO. : 16
ELEMENT REPORTS
    LOAD NODE
                SIGN CONVENTION : BEAM DESIGNERS
              AXIAL
    COMB NO
                        SHEAR MOMENT MAX MOM/DEFL DIST
  31
              -37,3345
                        19.3197
                                 -70.7716
         25
             --39,3345
                        19,3187
                                 141.7339
                                          -0.0329
                                                  7.33
         31
              -25,4370
                       12.9771
                                -47,5395
         29
              -26.4370
                        12.9771
                                 95.2067
                                          -0.0221
         31
              -26,6338
                        13.1951
                                -48,3467
         29
              -26.6338
                       13.1951
                                 96.7993
                                           -0.0225 7.33
         31
              -18.6946
                        9.1413
                                 -33,4853
       - 29
              -18.6946
                        9.1413
                                 57.0693
                                          -0.0156
                                                 7.35
              -39.6100
         31.
                        19,6239
                                -71.9017
         22
              -39.6100
                        19.6239
                                143,9608
                                          -0.0334
 R E A C T I O N S
ODE
      LOAD
              Fχ
NO.
     COMB
                           FY
                                     MOMENT
 Units : K
                                      K -Ft
COMBINATIONS:
Ad
MB
  1 :
      1.40 X CASE
               1
      1,70 X CASE
     1.40 X CASE
  2:
ΜB
      1.00 X CASE
      1.00 X CASE
MB 5 : 1.40 X CASE
      1.70 X CASE
        1
               -16.8941
                           33.9736
                                     -61.7898
        \overline{\mathcal{L}}
               -11,3606
                           22.8448
                                     -41.6856
        3
               -11.3435
                           22,8290
                                     -41.6229
               -8.0631
                                     -29,5859
                           16.2085
               -16.8701
                           33,9515
                                     -61.9020
```

PAGE NO. L

VAM : General Frame Analysis vi.58

CORAM : General Frame Analysis v1.58

GSA MAP ROOM 5031 - SLAB BEAM D

LW INC. 85A I

PASE NO. 20 TIME : Two Mar 10 10:03:35 1993

JOB NO. : 14

		REACT	I O N 8	The same that the same that it is a same that it is same that	a new ware to the state of the
	LOAD	the time of the terms of	is the interest to		
O	COMB	eta_{X}		MOMENT	
2	1.	19.6522	39.6359	-72,0059	
	773 AL	13.2153	25.6523	-48,4211	
	- The state of the	13.1951	24.4339	-48,3467	
•	4	9.3795	18.9077	-34,5667	•
	grand Pring County B	19.6239	37.6100	-71,9017	
9	1	2.6856	75,2403	9.8209	
		1.8151	50.5800	6.6379	
	3	1.6556	50.7785	6.0526	
-	4	1.3338	35.8188	4.8784	
	tur.	2.4622	75.5182	9,0016	
			•		
10	i	-3,9737	91,0408	14:6086	
	2	-2.4956	51,2018	9.8729	
		-2.4526	61,4419	9.0190	
-	4	-1.9726	43.3407	7.2511	
	Ē	-3.6475	91.3770	13.4132	
16	j.	-2,4450	77.5548	~8.9664	
<u> </u>	<u> </u>	-1.7465	52,3904	-6.4045	
ì	3	i.0000	48.2505	0.0000	
	4	-1.7465	38.3643	-6.4045	
	ź	0.0000	71.27586	0,0000	
	**************************************	nar og hav hjernjer	2 sh a 2 tulkalul	wa www.	
1 "7	· • • • • • • • • • • • • • • • • • • •	3 . 5779	Contract of a contract of cont	a war a a may may	
	2	2.5557	93.8413 63.3927	-13.1173	
	3	-0.0000		-7.3695	
	4	2.5557	58.3832	0.0000	
_	Ē	-0.0000	46.4208 86.8280	-9.3 69 5	
	·	**** \\ # \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	oo.oxov),0000 -	
,,- -	4	en en en en en			
	1	-0.0510	80.0452	-0.1807	
	ente elec enge	0.0574	54,0263	0.2480	
		-1.6556	50,7785	-6.0526	
	4 5	0.5408	39,2452	2,0074	
	D	-2,4622	75.5182	-9,00 1 6	
20. S		s			
4	1	Q.1580	96.8789	-0.6424	
5	2	-0.0399	65.3719	0.1030	
		2.4526	61.4419	-7.0190	
•	4	-0.7529	47.5108	2.7248	
	J	3.6475	91.3770	-13.4132	

PAGE NO. 20

OGRAM : General Frame Analysis v1.58 INC.

TIME : Tue Mar 10 10:03:35 1972

E GSA MAP ROOM 5031 - SLAB BEAM D

JOB NO. : 16

	LOAD	R E A C T	I O N S		
NO	COMB		₽Y	MOMENT	
-	and the the case are that the the thought of the A	yr iain dan han dag grae gan leit gold nig d'yn ann gan gan gan gan ber dan :	unt und eine mit dem best der eine eine eine und dem best eine best eine best	1969 (1961 (1964 (tige and use that this this tige and the tige the
30	1	16.6189	33.7133	60.9903	
	<u></u>	11.1640	22.6603	40.9717	
		11.3435	22.8290	41,6229	
	4	7.8665	16.0239	28.8720	
	ti.	16.8701	33.9515	61.7020	
31	1	-19.3187	39.3343	707716	
		-12.9771	26.4370	47.5395	
	T.	-13.1951	26.6338	48.3467	
	·	-9.1413	18.6946	33.4853	
	5	-19,6239	39.6100	71.7017	

nitects & Engineers, Inc.

00 Louisiems Blvet, NB Class Suim 400 Par Sugar, NM 87110 IS Suit - 2759 63 East Main Stre Suim 602 Mose, AZ 25201 (602) 227-2759 Project GSA MAP ROOM

Subject Room 5031

Project No. 91062.004 Date 2/21/92 By JMW

☐ Memorandum

☐ Telephone record

☐ Note to the file

☐ Minutes of meeting

☐ To be typed☐

SLAB BEAM "D"

$$d = 10.31$$
"
b = 1001N

TOP BARS
$$26^{\pm}5$$
 $A_3 = 12.41N^2$ $14^{\pm}5$ $A_5 = 12.41N^2$

$$a = \frac{12.4(40)}{.25(3)(100)} = 1.945 IN$$

$$\phi m_n = \frac{1}{12} (.9) \left[12.4 \right] (40) \left(10.31 - \left(\frac{1.945}{2} \right) \right]$$

$$\phi m_n = 347 \quad |-k| < 420 \quad |-k| \times N.G.$$

Page

of

Project_

Subject.

Project No. _____ Date ____ By_

☐ Memorandum

☐ Telephone record

☐ Note to the file

☐ Minutes of meeting

☐To be typed

8" SECTION - NEG.

$$M_{\rm u} = -117^{1-k}$$

$$a = \frac{12.4(40)}{.85(3)(300)} = 0.648 \text{ in}$$

$$\phi M_n = \frac{1}{12} (.9) [(12,4)(40)(6.3) - (\frac{.648}{2})]$$

$$\phi M_n = 223^{1-k} > 117^{1-k} V OK$$

$$>117^{1-k}$$

$$M_{1} = 153^{1-k}$$

$$a = \frac{11.78(40)}{,85(3)(300)} = 0.616$$
"

$$\phi M_n = 203^{1-k} > 153^{1-k}$$

Page

Designing to Shape the Inture

chitects & Engineers, Inc.

400 Louisiens Blvd. NB 15 Suim 400 uerque, NM 87110 1881-2759 63 East Main Stre Suin 602 Mesa, AZ 85201 (602) 827-2759 Project GSA MAP Room

Subject FLOOR LOAD ANALYSIS

Project No. 91062.004 Date 2/21/92 By JMW

☐ Memorandum

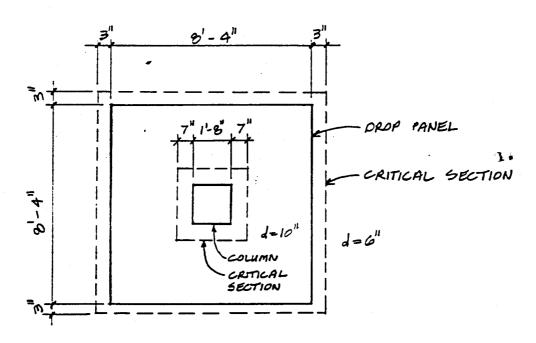
☐ Telephone record

☐ Note to the file

☐ Minutes of meeting

☐ To be typed

CHECK SHEAR - 6th FLOOR



TRIBUTARY AREA: 25'x25'

CHECK 8" SECTION:

$$b_{0} = 4(106) = 424_{1N}$$

$$\beta_{0} = \frac{424}{6} = 71$$

$$V_{c_{1}} = \left(\frac{\alpha_{2}d}{b_{0}} + 2\right)\sqrt{3000}\left(424\right)\left(6\right)\left(\frac{1}{1000}\right)$$

$$V_{c} = 357.6^{k}$$

$$\delta V_{n} = .85\left(357.6\right) = 304^{k}$$

Copies to:

Page of

Designing to Shape the future

chitects & Engineers, Inc.

#5 Suite 400 querque, NM 87110 881-2759

Suite 602 Mess, AZ 85201

Project		
•		

Subject_

Project No. _____ Date ____ By ____

☐ Memorandum ☐ Telephone record

□ Note to the file

☐ Minutes of meeting

☐ To be typed

CHECK @ DROPPBD

$$b_0 = 4(34) = 136''$$
 $p_0 = \frac{136}{10} = 13.6$

$$V_c = 4\sqrt{3000} (136)(10.31)(\frac{1}{1000}) = 307^k < 357^k$$

$$\phi V_n = .85(307) = 261^k$$

FIND RESERVE CAPACITY

$$DL = 122 \text{ psf} (1.4) = 171 \text{ psf}$$

 $LL = 50 \text{ psf} (1.7) = 85 \text{ psf}$
 256 psf

$$V_u = 620(.256) = 159^k$$

OR 97 psf MINUS PRESENT LOADS

opies to: June 1990 Page of

rchitects & Engineers, Inc.

2400 Louisiana Blvd. NE ABC 65 Suite 400 aquanqua, NM 87110 881-2759

1

63 East Main Store Suite 602 Mora, AZ 85201 (602) 827-2759

			☐ Telephone record
Project	Note to the file		
Subject			☐ Minutes of meeting
•			☐ To be typed
Project No	Date	By	0

☐ Memorandum

CHECK WIDE BEAM SHEAR

CRIT. SECTION: 6" FROM OROP PANEL, 25' LONG

TRIB AREA = 25(12.5-4.67') = 195,75'

$$\phi V_n = \phi V_c = .85(2) \sqrt{3000}(6)(300)$$

$$\phi V_n = 167.6^k$$

$$V_u = .256(195.75) = 50.11^k$$

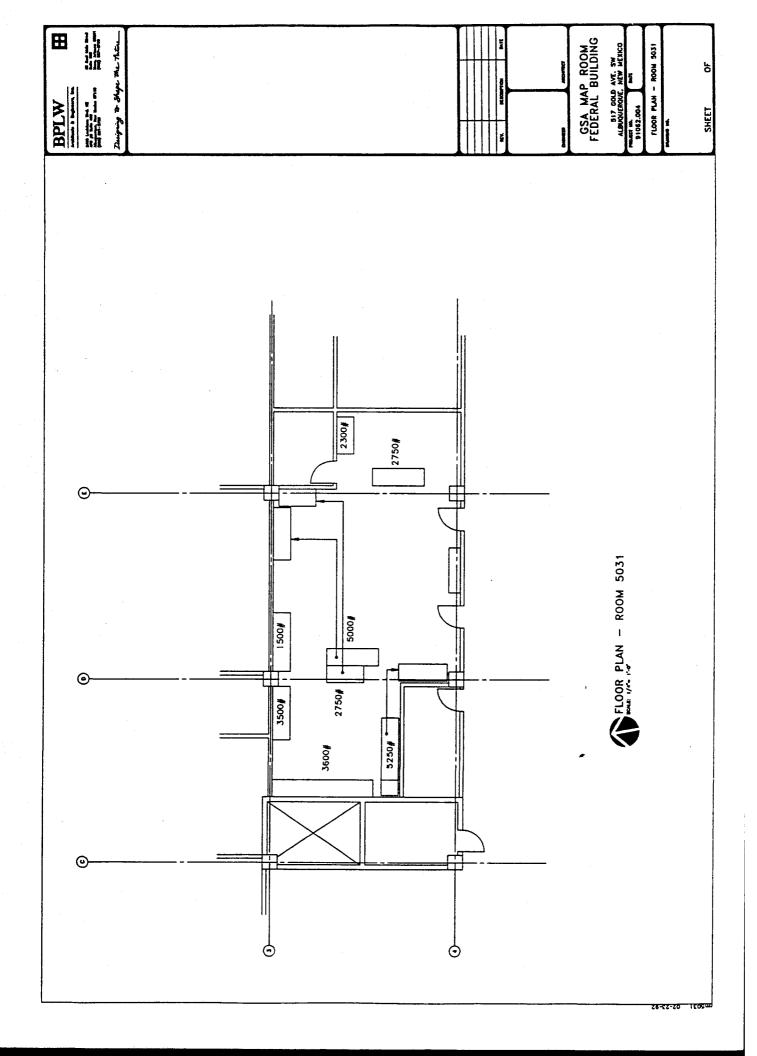
RESERVE CAPACITY:

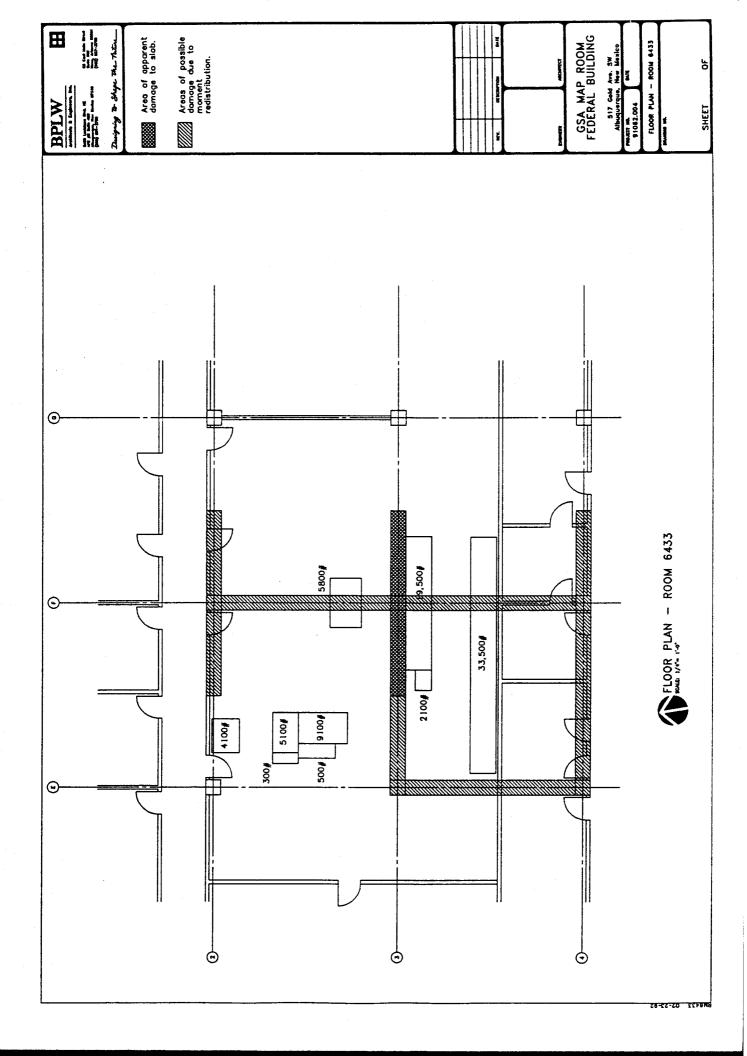
 $\frac{167.6-50.11}{1.7} = 69.11^k$ or 353 psf minus present loads

opies to:

Page of

APPENDIX C





Architects & Engineers, Inc.

erican Financial Center #5 0 Louisiana Blvd. NE

juquerque, New Mexico 87110

Senior Principals

Wam L. Burns, AIA aia L. Peters, AiA, APA osećn D. Long, Emeritus, AIA, PE

Biri J. Waters, AIA

C. Crafton, PE rrie M. Otero, AlA

David A. Penasa, PE, MIES

ey R. Bergmann, PE Ronald Burstein, AIA h : Manzanares, AlA

M. Mason, AIA, CCS

Eugene A. Valentine, AIA, CCS

March 4, 1992

5) 881-2759 FAX (505) 881-1230 Mr. Hector Gonzalez General Services Administration PBS, Region 7 Design and Construction Division (7PCPT) 819 Taylor Street Fort Worth, Texas 76102-6105

> Re: Floor Load Analysis

> > Room 6433, Federal Building

517 Gold Avenue Albuquerque, NM

Dear Mr. Gonzalez:

As per your request, I am sending a new layout for the map files in room 6433. This layout will reduce the moment induced into the twoway slab system. It is meant to be only a temporary solution to the overstressed condition of the slab until a thorough investigation of the condition of the slab can be performed.

The new layout shows locations for the "stacks" of map files. "Stack" refers to the current configuration of the map file cabinets. They are currently placed one on top of another to create a stack of up to 4 cabinets high. Entire stacks should be moved to the locations shown.

I hope this will fulfill your current needs. If you have any questions, or if we can be of further assistance, please contact our office.

Sincerely,

BPLW ARCHITECTS & ENGINEERS, INC.

Jason Weaver, EI

Structural Engineer

Jason M Weaver

